









EIGHTEENTH ANNUAL REPORT  
OF THE  
General Railroad Commissioners

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OF THE  
STATE OF CONNECTICUT,  
FOR 1871,  
TOGETHER WITH THE  
ANNUAL REPORT OF THE RAILROAD COMPANIES IN  
THIS STATE, FOR 1870.

TO WHICH ARE ADDED

Leading Statistics prepared by the Commissioners.

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Printed by Order of the Legislature.

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HARTFORD:  
PRESS OF CASE, LOCKWOOD & BRAINARD.  
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# REPORT.

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*To the Honorable General Assembly of the State of Connecticut, May Session, 1871.*

The Railroad Commissioners herewith respectfully submit their Eighteenth Annual Report of the Railroads in this State.

The Commissioners completed the organization of the present board on the 6th day of July, 1870, since which date their time has been fully occupied with the duties of their office. The resigning of one of the members of the former board, before the close of the year, was the cause of much delay in the transaction of business, and some work pertaining to that time remained unfinished at its close. The rapid increase in the number and business of railroads, additional time required in their examination, and the many questions to be settled in the establishment of new routes, have greatly increased the labor and responsibility of the office, while additional legislation from year to year, bringing new matters for approval or adjustment before the Commissioners, has materially changed the duties of the office since its establishment, and will evidently in the future require all the time and attention of its officers.

The Commissioners have made a thorough and careful examination of all the roads in operation in the State, and a minute inspection of the bridges, pile work, culverts, road-bed, ties, and track—and whatever appeared to pertain to the interest or safety of the public. The result of the examination has been in most cases highly satisfactory, and is more fully reported under the detailed condition of the roads, which follows hereafter.



The improvement in the condition of the roads, mentioned in former reports, has not only been continued in most cases, but, under efficient officers, has received additional impetus during the year. A larger amount has been expended for maintainance of way, than in any former year, and the idea seems to prevail, that it is better to do work well. The road-beds are made more carefully and with better ballasting, the culverts and cattle-guards when rebuilt are replaced with heavier material, the masonry and bridges rebuilt in a more substantial manner, and the track is made of better quality with improved and secure joints.

A corporation, for the sake of saving present expense in repairs and improvements, cannot afford to lose public favor by having an uneven and poor track or limited accommodations, as upon the popular verdict of the business and traveling public, financial success or failure in the operation of a road, in a great measure depends ; in addition to which fact, there is the great question of public safety, which demands that every precaution should be taken and no avoidable risks should be run in the preparation and management of a road.

Several new depots of commendable design have been built, and others have been repaired. More new ones are needed in many places, with more inviting accommodations for passengers and more side tracks for the convenience of freight-ing purposes. The policy that reaches to the future, with an expectation of increased business, and a provision for it, aids in bringing it about and will prove the most successful.

Notwithstanding the immense amount of manufacturing business carried on in this state, there remains, in the immediate vicinity of some of our railroads, a surprising extent of power and resources yet unused. Any encouragement a railroad corporation can give in their development, is one of the best investments it can make, as a road is indispensable to manufacturing interests, and a busy manufacturing section on the line of a road insures the success of railroad business. The occupation and use of the immense water power and



privileges in the Housatonic valley, would in a very short time double the income of that road.

The rolling stock of most of the roads is in good condition, and has been largely increased; a certain index of the increase of business. The number of engines has increased since last report from 202 to 229, the number of passenger cars from 268 to 312, merchandize cars from 2916 to 3405. The amount of gross earnings was reported last year at \$8,874,117.59; this year the amount is \$9,672,946.77, showing an increase of \$798,829.18. The net earnings last year were \$2,390,664.64; this year \$2,525,702.69; increase \$135,038.05.

The several railroad companies in the state have all made returns to the commissioners upon the blank forms prescribed and furnished under the Act of 1853. These returns are, however, incomplete in many respects, items of importance being omitted in many cases, and in others, evidently a misunderstanding of what is called for, leading to erroneous reports. Tables compiled from such sources cannot be made with accuracy, without which their value is greatly diminished. In this report, for example, the "number of passengers carried in cars" is given in some cases for a full year, in others for ten months or a term less than a year; and in others not at all. The total amount, if full and accurate returns in all cases had been given, would be much larger than now appears. An amendment of the form of schedule, as has been previously recommended, and the establishment of a fixed time at which the fiscal year of all railroads in the state, be made to close, is very desirable.

It is recorded with pleasure that no frightful railroad collision or serious disaster has occurred in the state during the year. Nearly all of the accidents reported have been the result of individual carelessness. By reference to the table of "Classification of Accidents," it will be seen that walking on the track is a more prolific source of danger than any other. Without doubt, a statute making it illegal to walk upon a railroad track would deter many from doing so, and greatly lessen the fatality to be recorded. Of the 22 accidents to employees, a great part was occasioned by jumping from cars



in motion, or other neglect of due precaution in performing their duties, only four having received injuries in coupling cars. Some device for connecting cars, which will make it unnecessary for brakemen to expose themselves to danger, in doing this work, is greatly needed.

Only two passengers have been injured, both of these by their own presumption in needlessly exposing themselves to danger; one was killed at Danbury as the train approached the station, by jumping from the cars while they were in motion; the other, standing on the steps of the cars while the train was on its way, which all passengers are forbidden to do, was killed by coming in contact with a bridge on the New London Northern road. The transportation of more than eight millions of passengers has been accomplished without accident or harm to a single individual complying with wholesome and proper regulations.

Suggestions have before been made regarding the necessity of a central office for keeping the official papers and documents of this commission. It being required by statute to keep a record of all complaints, and all its official acts or proceedings, the necessity of a suitable and stationary place for their safe keeping, becomes apparent. Many valuable records and papers, in their transfer from one part of the state to another, have already been lost, which are now often needed for reference. The charters of railroad corporations, maps, profiles, and records, now deposited with the Secretary of State, would prove of greater value, could they be deposited in an office, devoted entirely to such purposes, where they would be readily accessible to the commissioners; and their use would be of great assistance many times, in the settlement of disputed questions. A compiled report of the different railroad companies, beginning with their charters, and continuing to the present time, to which the official report might be added from year to year, would be a valuable record.

The suggestions for legislation, made to your honorable body by a former board, are hereby again presented and urgently recommended for your consideration.



*First*—That the fiscal year of all railroad companies terminate on the 31st day of December of each year.

*Second*—That the form of schedule for the returns of railroad companies be amended.

*Third*—That all highway bridges, hereafter constructed over any railroad track in Connecticut, shall be built at a height fixed by the railroad commissioners; but if said bridges, by the formation of the ground, are obliged to be less than 18 feet in the clear above the top of the rail, on the railroad track, then the said bridges shall be built with safeguards upon each side, so that a man, standing on the top of the railroad car, shall have warning that the train is approaching such a danger.

*Fourth*—That an act be passed, giving authority to change and abolish grade crossings, and highways parallel to railroads, wherever it is possible to do so, throughout the state, upon or near any and all railroads.

*Fifth*—That an act be passed, defining the powers of the commissioners over the depot accommodation of old existing railroads.

*Sixth*—That the law regarding the fencing of railroads, embodied in sections 492, 493, and 494, of the general railroad act, be amended.

*Seventh*—That an act be passed, giving to the commissioners the use of a room in the State House, at Hartford, where their records shall be kept for examination and preservation, and where maps and profiles of the several railroads shall be deposited and kept, and that the Secretary of State be required to deliver to the chairman of the railroad commission, all maps, profiles, and papers relating to railroads, which have previously been deposited by such roads in his office.

All of which is most respectfully submitted,

JAMES PIKE,	}	<i>Railroad Commissioners.</i>
SIMEON GALLUP,		
JOHN I. HUTCHINSON.		





## DETAILED CONDITION OF THE ROADS.

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### THE NEW YORK AND NEW HAVEN.

#### *From New Haven to New York City.*

This road fully maintains its former reputation for efficient management. The attention of its officers has been given the past year especially to the improvement of its track, their purpose being to lay steel rails throughout its entire length. Early in the season of 1870, 2,500 tons of steel rails were ordered, but were not delivered in time for the laying of more than about one-half of that amount.

This company intends building a new double-track bridge across the Housatonic River, the taking of additional lands necessary in making approaches to which was approved by the commissioners in August and work upon it has already commenced. The building of a new depot at New Haven, is also under consideration, a movement that has long been needed, the present building being insufficient to meet the wants of constantly increasing travel and business, and not remarkable for beauty or convenience.

This company effected a union of its property and interest with the Hartford and New Haven Railroad Company in September, 1870. A joint board of managers was elected from the members of the respective boards of directors of the two roads, of which William D. Bishop, President of the New York and New Haven, was chosen President, and William P. Burrall, President of the Hartford and New Haven, was chosen Vice President. The management of the operations of each road is as yet kept in charge of its own executive officers.

## OFFICERS.

<i>President,</i>	WILLIAM D. BISHOP,	Bridgeport.
<i>Treasurer,</i>	JOHN T. SHELTON,	Bridgeport.
<i>Secretary,</i>	EDWARD I. SANFORD,	New Haven.
<i>Superintendent,</i>	JAMES H. HOYT,	Stamford.

## DIRECTORS.

WILLIAM D. BISHOP, NATHANIEL WHEELER, Bridgeport.  
 GEORGE B. CARHART, GEORGE N. MILLER, ABRAHAM R. VAN  
 NEST, JAMES J. ROOSEVELT, WILSON G. HUNT, New York.  
 EZEKIEL H. TROWBRIDGE, New Haven.  
 JONATHAN GODFREY, Southport.  
 NATHAN A. BALDWIN, Milford.

## THE HARTFORD AND NEW HAVEN.

*From New Haven to Springfield, Mass.*

This company has been materially adding to the accommodations, facilities and value of its road the past year, and the success attending its operations is the best proof of its judicious management.

A quarry has been purchased in Meriden and a branch road about three fourths of a mile in length built to it, to procure stone for ballasting, protecting banks subject to injury by water, and similar uses. The grading of a second track from Hartford to Newington, about five miles, is nearly finished, which when laid will complete a double track belonging to this road between Hartford and New Haven. A new and substantial stone bridge of eight arches, of admirable design and execution, has been constructed across the Mattabesit River near Berlin. A commodious and elegant passenger building has been erected at Windsor station, and others are contemplated. About 3,700 tons of steel rails, besides 500 tons of steel-headed iron rails, laying about 42 miles of track, have been put down the past season, placing the track in the best condition, and giving to cars run at a high rate of speed a smooth and almost imperceptible motion, and to the passenger a degree of ease and comfort not often surpassed.

The union of this company with the New York and New



Haven Company was noticed in the report of the latter company.

The branch roads from Berlin to Middletown and New Britain, and also from Windsor Locks to Suffield, are in good condition and in successful operation.

#### OFFICERS.

<i>President,</i>	W. P. BURRALL,	Hartford.
<i>Secretary,</i>	S. P. CONNER,	"
<i>Treasurer,</i>	C. M. POND,	"
<i>Superintendent,</i>	E. M. REED,	"

#### DIRECTORS.

W. P. BURRALL, Hartford.

CHESTER W. CHAPIN, Springfield, Mass.

CORNELIUS VANDERBILT, New York City.

EZRA C. READ, New Haven.

ELI BUTLER, Meriden.

JULIUS CATLIN, C. M. POND, H. C. ROBINSON, E. G. HOWE, Hartford.

#### THE NORWICH AND WORCESTER.

##### *From Norwich to Worcester, Mass.*

This road shows a careful superintendence, and a desire on the part of its officers to provide for the wants of the traveling public, and meet the demands of business along its line. About 350 tons of iron rails have been laid the past year. The track and road-bed are in good condition, with the exception of some of the cattle-guards, which need re-building with heavier masonry. This the company has already designed to do, but is somewhat hindered by its connection with the Boston, Hartford, and Erie Company, to which the road is still leased.

The following is a report from the commissioners of this road, showing its proportionate receipts and expenditures for the states of Massachusetts and Connecticut:

*Commissioners' Thirty-Fifth Annual Report to September 30th, 1870.*

The undersigned having been called upon to examine the accounts of the Norwich and Worcester Railroad Company relative to the expenditure of the road, and to decide what portion of said expenditures are to be charged to the different sections of the road report, that on the 5th day of November, 1870, we examined the accounts of said Company up to the 30th day of September, 1870, and found that there had been expended for the road in Connecticut to the 30th of September, 1870, - - - - - \$1,840,597.60

There had been expended in Massachusetts to the 30th of September, 1870, - 773,096.61

Making the whole cost of the road to September 30th, 1870, - - - - - \$2,613,694.21

They further report that the accounts of the expenditures on the road in each state have been kept separate and distinct, as required by the charter.

That the receipts of the Company for ten months ending September 30th, 1870, were - - - \$614,199.54

Expenditures for repairs of road, cars, bridges, locomotives, station houses, new locomotives, new cars, fuel, passengers, and freight expenses, &c., - - - - - 422,557.40

Leaving, - - - - - \$191,642.12

From which deduct interest, - - - 43,087.32

Leaving, after deducting expenses and interest, \$148,554.80

Of which we have set

To Massachusetts  $\frac{1}{3}$ , - \$49,518.26 $\frac{2}{3}$

To Connecticut  $\frac{2}{3}$ , - - 99,036.53 $\frac{1}{3}$ —\$148,554.80

All of which is respectfully submitted.

*Commissioner for Massachusetts.*

GEORGE C. RIPLEY,  
*Commissioner for Connecticut.*



## OFFICERS.

<i>President,</i>	ALBA F. SMITH,	Norwich.
<i>Treasurer,</i>	GEORGE L. PERKINS,	Norwich.
<i>Secretary,</i>	EDWARD T. CLAPP,	Norwich.
<i>Superintendent,</i>	P. ST. M. ANDREWS,	Norwich.

## DIRECTORS.

A. F. SMITH, JOHN F. SLATER, AUGUSTUS BREWSTER, Norwich.

ROBERT BAYARD, New York.

WILLIAM F. WELD, BENJAMIN F. STEVENS, Boston, Mass.

F. H. DEWEY, GEORGE W. GILL, CHARLES W. SMITH, Worcester, Mass.

## HARTFORD, PROVIDENCE, AND FISHKILL.

*From Waterbury to Providence, R. I.*

This road sustained very serious damage in the freshets of October, 1869, to repair which has required much of the attention of its officers the past year, and much expenditure of capital. A substantial stone arch culvert has been put in at a wash-out, near Andover, at a great expense. Less has probably been done to the road in other parts, on this account, than otherwise would have been done. The road is generally in good condition, and the utmost care and attention to the wants and comfort of passengers is exercised by the officers and employees of this road. Its worst feature is a much worn track, and in the eastern section some of the old rails of short pattern should be replaced by new soon as possible. About 420 tons of iron rails have been laid the past year.

If another through train between Hartford and Providence, could be put upon this road, in connection with the short train now run from Providence to Plainfield, it would, we think, prove a desirable and profitable acquisition.

## OFFICERS.

*Trustees,* GEO. M. BARTHOLOMEW, CALVIN DAY, E. G. HOWE, Hartford.

S. F. OLNEY, HENRY LIPPITT, ELISHA DYER, BENJAMIN TRIPP,  
Providence, R. I.

*Superintendent*, SAMUEL NOTT, Hartford.  
*Sec. and Treas.*, J. M. BELDEN, “  
*Asst. Supt.*, N. H. ANDREWS, “  
*Gen'l Frt. Agt.*, J. H. PYNCHON, “  
*Gen'l Ticket Agt.*, L. TUTTLE, “

#### ROCKVILLE.

##### *From Vernon to Rockville.*

This road is run by the Hartford, Providence, and Fishkill, with which company, most of its returns are included. All the income of this road is yet required to make good the damage caused to it by the freshet of October, 1869.

#### OFFICERS.

*President*, J. J. ROBINSON, Rockville.  
*Sec. and Treas.*, A. PARK HAMMOND, “

#### DIRECTORS.

J. J. ROBINSON, GEORGE MAXWELL, S. D. W. HARRIS, FRANK GRANT, A. PARK HAMMOND, Rockville.

#### SOUTH MANCHESTER.

##### *From Manchester to South Manchester.*

This road is also run by the Hartford, Providence, and Fishkill, with which company its returns are included.

#### OFFICERS.

*President*, FRANK W. CHENEY, Hartford.  
*Secretary*, RICHARD O. CHENEY, So. Manchester.  
*Treasurer*, CHARLES S. CHENEY, “ “

#### DIRECTORS.

RALPH CHENEY, RUSH CHENEY, FRANK CHENEY, So. Manchester.

FRANK W. CHENEY, Hartford.

RICHARD O. CHENEY, So. Manchester.



## NEW LONDON NORTHERN.

*From New London to Grout's Corner, Mass.*

This road, under a careful superintendence, has been improved, while at the same time, both the gross and net receipts, have increased. Below is given a table of its comparative earnings since 1862.

Mr. J. T. McManus resigned his position as superintendent, early in the spring, and has been succeeded by Mr. G. A. Merrill, formerly of the Rutland Railroad, in Vermont.

## OFFICERS.

<i>President,</i>	A. N. RAMSDELL,	New London.
<i>Treasurer,</i>	ROBERT COIT, JR.,	“
<i>Superintendent,</i>	GEO. A. MERRILL,	“

## DIRECTORS.

A. N. RAMSDELL, HENRY P. HAVEN, WM. W. BILLINGS, WM.  
H. BARNS, BENJ. STARK, AUGUSTUS BRANDEGEE, New London.  
WM. ALLEN BUTLER, New York.  
WM. H. HILL, Boston, Mass.  
CHARLES F. THOMPSON, Brattleboro, Vt.  
HENRY CLEWS, New York.  
JOSEPH SMITH, New London.  
CHAS. F. DAVENPORT, New York.

## COMPARATIVE EARNINGS FROM 1862 TO 1870.

MONTH.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.
January, - -	\$ 8,577.20	\$11,464.57	\$16,409.28	\$17,677.28	\$21,541.58	\$20,287.22	\$23,222.34	\$27,688.07	\$29,553.56
February, -	8,848.34	11,715.99	8,171.31	17,976.31	19,316.61	22,225.48	22,869.70	26,293.88	28,357.68
March, - - -	10,123.83	12,914.07	21,909.23	22,135.04	25,574.37	30,560.06	27,251.67	32,065.65	35,753.36
April, - - -	11,210.64	13,575.64	23,910.94	21,658.79	25,026.41	35,147.05	33,614.87	36,537.65	38,752.23
May, - - -	11,506.80	12,820.77	19,991.82	25,119.55	27,204.68	36,529.29	35,381.04	36,621.78	38,713.13
June, - - -	11,812.98	15,239.66	23,088.71	24,600.56	27,224.38	32,952.05	36,158.57	34,936.23	35,225.22
July, - - -	14,911.84	16,826.43	23,892.98	30,970.83	29,834.88	37,025.07	38,264.14	39,982.81	44,487.69
August, - -	17,330.99	24,478.52	29,468.80	33,784.71	33,198.72	40,702.77	38,072.54	44,137.72	52,129.40
September, -	17,652.71	21,187.72	28,088.63	32,766.95	33,121.95	34,804.37	41,643.37	45,099.12	49,584.84
October, - -	14,854.25	21,143.90	20,913.38	26,140.65	29,661.12	34,790.99	43,167.55	28,390.52	40,260.20
November, -	12,591.45	17,263.14	22,558.69	25,657.28	30,199.73	30,892.35	31,013.46	34,451.09	39,329.39
December, -	11,514.99	16,394.14	23,272.83	28,278.64	25,572.08	25,622.25	34,184.42	34,476.07	37,678.66
Total, - -	\$151,536.02	\$195,065.30	\$270,670.60	\$306,766.58	\$327,476.59	\$381,838.95	\$404,846.69	\$421,680.58	\$469,695.36



## HOUSATONIC.

*From Bridgeport to Pittsfield, Mass.*

Perhaps no road in the state shows a greater degree of improvement in its condition than this. Several miles of its track have been raised and new ballasting put in; a large amount of iron rails, about 2,100 tons have been laid, its depots have been greatly improved, new cars and locomotives added to its rolling stock; and the whole road presents the appearance of thrift and judicious care. A still further improvement in some of its depots is desirable.

A large amount of damage is paid yearly for cattle killed upon this road, insufficient fences along its line allowing them to come upon the track almost at pleasure. Besides the loss sustained the danger to the travelling public is very great from the liability of a train being thrown from the track. Some just and equitable law should be passed, by the enforcement of which the old roads, laid out before the enactment of the present laws in regard to fences, could be fenced throughout their entire length, and a source of annoyance and expense to the railroad company, and of great danger to the public, be removed.

The financial report shows the most successful operation of the road. Below is given a table of its comparative revenue from 1865 to 1870.

## OFFICERS.

<i>President,</i>	DAVID LEAVITT, Gt. Barrington, Mass.
<i>Vice Prest.,</i>	WM. H. BARNUM, Lime Rock.
<i>Sec'y and Treas.,</i>	CHAS. H. AVERILL, Bridgeport.
<i>Superintendent,</i>	H. W. FRANKLIN, Bridgeport.

## DIRECTORS.

DAVID LEAVITT, Gt. Barrington, Mass.  
 SAMUEL WILLETTS, New York.  
 WM. H. BARNUM, Lime Rock.  
 GEO. W. PEET, Falls Village.  
 GEO. H. NOBLE, New Milford.  
 HORACE NICHOLS, WM. D. BISHOP, Bridgeport.  
 DAVID S. DRAPER, Gt. Barrington, Mass.  
 CHARLES A. PECK, New York.

## COMPARATIVE REVENUE OF THE HOUSATONIC RAILROAD COMPANY.

	1865.	1866.	1867.	1868.	1869.	1870.
January, -	\$36,924.20	\$32,928.60	\$28,791.07	\$30,720.49	\$41,484.95	\$52,378.88
February, -	31,765.91	28,549.99	31,441.53	26,911.81	38,688.15	46,845.94
March, -	33,661.33	35,876.74	39,048.98	37,247.19	52,160.29	55,429.05
April, -	33,912.23	38,193.70	43,277.42	49,695.00	60,214.06	63,606.69
May, -	38,719.70	40,364.92	42,890.31	49,360.76	60,446.11	66,487.55
June, -	35,963.18	41,293.47	45,339.93	49,800.17	57,904.31	62,550.37
July, -	41,629.56	47,529.84	50,219.44	50,467.28	66,777.33	67,790.24
August, -	48,106.93	49,453.06	52,186.16	55,271.49	66,562.38	72,994.55
September, -	46,209.28	53,534.51	56,777.71	61,073.45	68,245.90	74,194.24
October, -	46,907.24	53,602.84	57,450.62	65,274.01	66,840.53	68,943.15
November, -	43,832.49	44,307.17	48,792.85	55,845.52	67,512.99	63,340.13
December, -	40,463.32	36,969.33	38,728.67	50,315.98	56,970.94	57,536.76
	\$478,095.37	\$502,604.19	\$534,544.69	\$581,983.15	\$703,807.94	\$752,097.55



## NAUGATUCK.

*From Bridgeport to Winsted.*

The rapid increase of the manufacturing interests and consequent growth of villages in the Naugatuck valley, makes this one of the most successful roads in operation in the state. It is kept in good condition, has laid the past year about 530 tons of steel rails using the Fish joint, improved its culverts and cattle-guards, and also the ballasting in many places. A new and elegant passenger station, doing honor to the road, has been built at Wolcottville.

## OFFICERS.

*President,* E. F. BISHOP, Bridgeport.  
*Sec'y and Treas.,* HORACE NICHOLS, Bridgeport.  
*Superintendent,* GEORGE W. BEACH, Waterbury.

## DIRECTORS.

WM. D. BISHOP, Bridgeport.  
 GREEN KENDRICK, Waterbury.  
 RUSSELL TOMLINSON, Bridgeport.  
 A. L. DENNIS, Newark, N. J.  
 N. A. BALDWIN, Milford.  
 E. F. BISHOP, Bridgeport.  
 JOHN B. ROBERTSON, New Haven.  
 J. G. WETMORE, Winsted.  
 R. M. BASSETT, Derby.

## WATERTOWN AND WATERBURY.

*From Waterbury to Watertown.*

This new road about  $4\frac{1}{2}$  miles long was completed in October of 1870, and immediately leased to the Naugatuck Railroad Company for a term of five years.

## OFFICERS.

*President,* OWEN B. KING, Watertown.  
*Sec'y and Treas.,* LEMAN W. CUTLER, Watertown.

## DIRECTORS.

O. B. KING, C. A. WARREN, ELI CURTIS, L. W. CUTLER,  
 .M. HEMINGWAY, HENRY MERIMAN, GEO. A. WOODRUFF, WM.  
 E. CURTIS, C. T. HICKOX, Watertown.  
 GEO. W. BEACH, Waterbury.

## NEW YORK, PROVIDENCE, AND BOSTON.

*From New London to Providence.*

This road maintains its good condition. Improvements have been continued in filling up more of its pile bridges with solid earth. About 425 tons of iron rails have been laid in Connecticut the past year. The company intend to procure immediately a new boat for their ferry at New London, of much greater capacity than that now in use, so that whole trains may pass over at once. By an arrangement of their time table, passengers will be given ample time to procure refreshments, in the saloon of the boat, thus adding to the attractions of this route.

## OFFICERS.

*President,* SAMUEL D. BABCOCK, New York.  
*Vice President,* DAVID S. BABCOCK, “  
*Secretary,* F. B. NOYES, Stonington.  
*Treasurer,* HENRY MORGAN, New York.  
*Superintendent,* A. S. MATHEWS, Stonington.  
*Assis't Super't,* J. B. GARDINER, Providence, R. I.

## DIRECTORS.

SAMUEL D. BABCOCK, D. S. BABCOCK, HENRY MORGAN,  
 JAMES B. JOHNSTON, WM. F. CAREY, JR., New York.  
 HON. NATHAN F. DIXON, Westerly, R. I.  
 JOHN A. BURNHAM, Boston, Mass.  
 S. B. STONE, Stonington.



## NEW HAVEN AND NORTHAMPTON.

*From New Haven to Northampton, Mass.*

The returns from this company show an increase of business, and encouraging prospects for the future. Its road is in good condition, and rolling stock in excellent order. The officers of the road contemplate straightening its line in some sections, which would be a great improvement, as the route follows the path of the old Farmington Canal and is often very crooked, abounding in sharp curvatures.

## OFFICERS.

<i>President,</i>	JOSEPH E. SHEFFIELD, New Haven.	
<i>Vice Pres't &amp; Sup't,</i>	CHARLES N. YEAMANS,	"
<i>Treasurer,</i>	S. D. PARDEE,	"
<i>Secretary,</i>	EDWIN A. RAY,	"

## DIRECTORS.

JOSEPH E. SHEFFIELD, WM. W. BOARDMAN, M. G. ELLIOTT, H. M. WELCH, ANDREW L. KIDSTON, S. D. PARDEE, CHAS. N. YEAMANS, New Haven.

WM. W. PHELPS, GEORGE ST. JOHN SHEFFIELD, New York.

## SHORE LINE RAILWAY.

*From New Haven to New London.*

The state of this road might be improved. Though perhaps not immediately unsafe, yet a road upon which trains are run at a very high rate of speed, as it is often necessary to do upon this line in making proper connection with express trains, should be always kept in the most perfect order. At the fall examination numerous repairs were recommended to be made immediately, only a part of which have yet been made. Especially was this the case with the pile work, of which there is a large amount upon the line. Much of this should be filled with solid earth, as has been done on the New York, Providence and Boston road, which would make a safe

and permanent roadway, and greatly lessen the future expense of repairs. The road needs a very large amount of new iron for the improvement of its track, and new chairs or splices to replace those worn out.

The bridge across the Connecticut river at Lyme has been completed, and is now in use. No certificate of the condition of this bridge as a part of the road has been given by the commissioners, as no application was made to them by the company on opening the bridge to public travel.

This road has been leased to the New York and New Haven Railroad Company, which will hereafter assume the responsibility of its management.

#### OFFICERS.

*Prest. and Supt.*, SERENO H. SCRANTON, New Haven.  
*Sec. and Treas.*, E. S. SCRANTON, “

Directors not reported.

#### DANBURY AND NORWALK.

##### *From South Norwalk to Danbury.*

This is one of the most successfully operated roads in the state, the returns showing a dividend of 16 per cent. All its appointments are in good order. About 250 tons of iron rails have been laid the past year. A new dock is in process of construction at South Norwalk, which will greatly facilitate shipments of heavy freight.

The branch road to Ridgefield was completed and trains commenced running in July of 1870. The obstacle of a very steep grade, amounting to a rise of 120 feet per mile, has been successfully met and overcome, and trains run without difficulty.

#### OFFICERS.

*President*, EDWIN LOCKWOOD, Norwalk.  
*Vice President*, LE GRAND LOCKWOOD, New York.  
*Sec. and Treas.*, H. WILLIAMS, Danbury.  
*Superintendent*, JOHN W. BACON, “



## DIRECTORS.

EDWIN LOCKWOOD, WM. K. JAMES, JONATHAN CAMP, WM. C. STREET, WM. L. QUINTARD, ASA E. SMITH, EBENEZER HILL, Norwalk.

LE GRAND LOCKWOOD, WM. HUBBELL, New York.

LUCIUS P. HOYT, DAVID P. NICHOLS, Danbury.

HENRY SMITH, Ridgefield.

ORIN BENEDICT, Bethel.

## BOSTON, HARTFORD AND ERIE.

*From Fishkill, New York, to Boston, Mass.*

The financial condition of this corporation has prevented the completion of any additional portion of the road since last reports. It is very desirable that the portion of the road between Willimantic and Putnam in this state, already nearly finished, should be completed. The great amount of money already expended, and the substantial character of the work done, seem to present a just claim that the investment should be made useful, if not profitable.

Of the financial condition there is no report, the returns from the company only showing the business done on their entire road, of which there are but 17 miles in operation in this state.

## OFFICERS.

*Receivers,* GEO. M. BARTHOLOMEW, Hartford.  
J. W. CONVERSE, Boston, Mass.  
GEO. T. OLYPHANT, New York.  
J. G. GARDINER, New York.

## DIRECTORS.

F. A. LANE, New York.  
CHARLES R. CHAPMAN, Hartford.  
NEWELL CLARK, H. L. HALLETT, Boston.  
EDWARD HARRIS, Woonsocket, R. I.  
M. E. INGALLS, R. W. KING, B. L. MERRILL, N. A. PRENTISS, Boston, Mass.

HOMER RAMSDELL, Newburg, N. Y.  
 DANIEL S. RICHARDSON, Boston, Mass.  
 E. C. SHERMAN, Plymouth, Mass.  
 C. C. VAN ZANT, Newport, R. I.

#### NEW CANAAN.

##### *From Stamford to New Canaan.*

This road is managed with care and economy, and is deserving of patronage. Being only a branch road, and forming no part of a thorough line, it must depend upon its local attractions to induce people to travel that route.

#### OFFICERS.

*President,* SAMUEL ST. JOHN, New Canaan.  
*Vice Pres.,* J. B. HOYT.  
*Treasurer,* WM. ST. JOHN, New Canaan.  
*Secretary,* NOAH W. HOYT, "  
*Superintendent,* SAMUEL ST. JOHN, "

#### DIRECTORS.

SAMUEL ST. JOHN, SELICK ST. JOHN, STEPHEN HOYT, JOSEPH B. HOYT, JOSEPH D. WARREN, New Canaan.

WILLARD PARKER, ANDREW K. COMSTOCK, ALEXANDER LAW, WILLIAM E. RAYMOND, New York.

#### NEW YORK, HOUSATONIC, AND NORTHERN.

##### *From Brookfield to White Plains, N. Y.*

This road is in operation as heretofore, between Brookfield, on the Housatonic Railroad, and Danbury, a distance of about five miles. Its facilities for doing business in Danbury, have been somewhat improved, and some work has been done in grading other parts of the road.

#### OFFICERS.

*President,* GEORGE W. MEAD, Brooklyn, N. Y.  
*Vice Pres.,* DAVID S. DUNCOMB, New York.



*Sec. and Treas.*, SEWALL SERGEANT, New York.  
*Engineer*, MATTHEW BETTS, "  
*Superintendent*, FRED. M. MEAD, Danbury.

## DIRECTORS.

GEO. W. MEAD, Brooklyn, N. Y.  
 DAVID S. DUNCOMB, LEONARD D. WHITE, ERASTUS F. MEAD,  
 THOMAS CLARK, JR., HARRISON HALL, CHARLES D. BAILEY,  
 New York.  
 WALTER KEELER, North Salem, N. Y.  
 JOSEPH BENEDICT, Cross River, N. Y.  
 JARED D. POWELL, Katonah, N. Y.  
 ERASTUS E. BOUTON, South Salem, N. Y.  
 LEEMON B. TRIPP, North Castle, N. Y.  
 SILAS D. MEAD, Greenwich.

## NEW HAVEN AND DERBY.

*From New Haven to Derby.*

This road is nearly completed, only about a mile of track remaining to be laid, for which the grading is also ready. The work has been steadily carried forward the past year.

## OFFICERS.

*President*, MORRIS TYLER, New Haven.  
*Secretary*, FRANCIS E. HARRISON, New Haven.  
*Treasurer*, CHARLES ATWATER, "  
*Superintendent*, ELI S. QUINTARD, "

## DIRECTORS.

MORRIS TYLER, H. S. DAWSON, EDWIN MARBLE, CHAS. L. ENGLISH, PATRICK WARD, JOHN B. HOTCHKISS, H. P. FROST, CHAS. ATWATER, WM. H. BRADLEY, HENRY G. LEWIS, N. D. SPERRY, New Haven.  
 GEORGE W. SHELTON, Derby.  
 J. H. BARTHOLOMEW, Ansonia.

## RIDGEFIELD AND NEW YORK.

*From Ridgefield to Port Chester, N. Y.*

The returns from this company show some work done, but of the particular condition of the road no report has been received.

## OFFICERS.

<i>President,</i>	ELWOOD BURDSALL, Port Chester, N. Y.
<i>Treasurer,</i>	PETER C. CORNEN, Ridgefield.
<i>Secretary,</i>	EPHRAIM SOURS, Port Chester, N. Y.
<i>Engineer,</i>	SAMUEL N. HAIGHT, Port Chester, N. Y.

## DIRECTORS.

ELWOOD BURDSALL, Port Chester, N. Y.  
 PETER C. CORNEN, Ridgefield.  
 EPHRAIM SOURS, WM. P. ABENDROTH, Port Chester, N. Y.  
 DANIEL L. ADAMS, H. K. SCOTT, Ridgefield.  
 WILLIAM J. MEAD, HANDFORD LOCKWOOD, Greenwich.  
 HENRY KEELER, South Salem, N. Y.  
 WILLIAM TAYLOR, Poundridge, N. Y.  
 SETH S. COOK, FLOYD T. PALMER, Long Ridge, Conn.  
 PHINEAS C. WRIGHT, 29 Wall street, New York.

## CONNECTICUT WESTERN.

*From Hartford to junction with Harlem Railroad, N. Y.*

Work on this road has been pushed forward with vigor, "seven eighths of the entire grading and bridging" being now reported as completed. The company intend to soon commence the laying of rails, and expect to complete the entire road during the summer.

Several questions in regard to highway crossings on this line have been brought to the notice of the commissioners, which they have endeavored to decide justly, though not always to the satisfaction of *both* parties. The subject of public safety has been considered of chief importance, while the interest of the road with which that of the public is intimately connected, has not been overlooked.



## OFFICERS.

*President*, HON. WILLIAM H. BARNUM, Lime Rock.  
*Vice President*, GEORGE M. BARTHOLOMEW, Hartford.  
*Secretary*, WILLIAM C. COE, Winsted.  
*Treasurer*, WILLIAM L. GILBERT, West Winsted.

## DIRECTORS.

HON. WILLIAM H. BARNUM, Lime Rock.  
 A. H. HOLLEY, Salisbury.  
 GEORGE H. BROWN, Dutchess county, N. Y.  
 FREDERICK WATSON, Canaan.  
 E. T. BUTLER, Norfolk.  
 GEORGE DUDLEY, WILLIAM L. GILBERT, West Winsted.  
 JAMES GOODWIN, GEORGE M. BARTHOLOMEW, JAMES L.  
 HOWARD, GEORGE W. MOORE, N. B. STEVENS, Hartford.  
 BYRON LOOMIS, Suffield.

## CONNECTICUT VALLEY.

*From Hartford to Saybrook.*

This road is rapidly approaching completion ; the greater part of the grading done, and a large amount of iron ready to be laid. The company expect to complete the entire road by the first of July next.

The layout of a part of this road in the city of Hartford, as presented to the Railroad Commissioners for their approval was strenuously opposed ; but after a hearing which was continued for several days, and during which voluminous testimony was accumulated and much legal ammunition expended, the route asked for was approved. So great objection having been made to the proposed layout, it may be proper to state here some of the reasons having weight with the Commissioners in giving their decision.

The original design of the company was to construct the road so that it should accommodate the manufacturing and freighting interests on the east side of the city, the layout of which was abandoned by the directors of the company for certain reasons considered by them of vital importance to the company, no action of the Commissioners having been taken.

Another route was then sought for, and a line east, and another west, of the original route were each considered, the former being the one adopted by a majority of the directors and presented to the Commissioners for their acceptance, the latter being claimed by the defendants as the best route. From testimony elicited, and from examination of the routes, the Commissioners were unanimous in their decision that the *east route*, following nearly the design of the projectors of the road, passing through a section of the city devoted to manufacturing interests and needing facilities at its very doors for the transportation of machinery, stone, iron, and like heavy freights, and devoted also to merchandise in heavy commodities like coal and lumber, to which immediate connection with the road by spur tracks and otherwise is of great advantage, would greatly benefit that section of the city, and increase the value of property by adding to it facilities now much needed—it being also essential to the interest of the road to furnish these facilities and accommodate itself to this branch of business; while the *west route*, passing through a section of the city now occupied and evidently designed in the future to be built up mainly with residences, and the streets to be used for public driving and pleasure travel rather than business purposes, would greatly injure that section of the city and depreciate the value of much property, while the road also would be seriously injured by being so far removed from a branch of business essential to its prosperity. The crossing of many fine streets and avenues on the west route would lead to questions difficult of solution, as the crossing of them at grade would be an insufferable source of danger, and the bridging of them would necessitate lowering the grade of the whole road for a long distance, entirely cutting it off from business along its line and requiring a greater probable expenditure than the interest of such a road would warrant, while on the east route the streets are crossed near the river at the extreme end mainly used for business purposes, a number of them by bridging on account of the raised position of the road, and all in a manner not endangering public safety.



The interest of the public as passengers over this road would be provided for equally well by either route, having the same terminus in both cases, and the estimated difference in the cost of construction was not considered by the Commissioners of sufficient importance to govern their decision, but the east route was approved as the one best adapted to promote the interest of the road and also of the city and the public.

## OFFICERS.

*President,* JAMES C. WALKLEY, Hartford.  
*Vice Pres't,* LUTHER BOARDMAN, East Haddam.  
*Treasurer,* NELSON HOLLISTER, Hartford.  
*Secretary,* LEVI WOODHOUSE, Hartford.  
*Chief Eng'r,* HIRAM FOWLER, Hartford.

## DIRECTORS.

JAMES C. WALKLEY, Hartford.  
 LUTHER BOARDMAN, East Haddam.  
 SAMUEL BABCOCK, GASTON T. HUBBARD, Middletown.  
 ELISHA STEVENS, Cromwell.  
 OLIVER H. CLARK, Chester.  
 S. M. COMSTOCK, Centrebrook.  
 GEORGE BEACH, JOSEPH S. WOODRUFF, FREDERICK R. FOSTER, NELSON HOLLISTER, ELISHA T. SMITH, FRANCIS B. COOLEY, Hartford.

## NEW HAVEN, MIDDLETOWN, AND WILLIMANTIC.

*From New Haven to Willimantic.*

The welfare of this road suffered a severe shock in the loss of its President, the Hon. DAVID LYMAN, who died at his home in Middlefield, January 24th, 1870. He was a most zealous advocate of the interests of the "Air Line," and the embodiment of untiring activity and perseverance, through whose exertions, difficulties, however great, were met and overcome, and obstacles seemingly impassable were surmounted. His place will not easily be filled.

The road has been completed from New Haven to Middletown, and trains commenced running in August, 1870. It is a thoroughly well-built road, and intended to be first-class in every respect. The route from Middletown to Willimantic, except a few miles commencing at Connecticut river, has never been presented to the commissioners for approval. It is very desirable that this line of road should be completed in connection with that portion of the Boston, Hartford, and Erie road which lies between Willimantic and Putnam, so that the through route from New York to Boston may be opened.

The railroad commissioners, with whom JOHN W. BACON, Esq., Superintendent of the Danbury and Norwalk Railroad, was appointed by a judge of the superior court to act as engineer, were called upon under the provisions of General Statutes (sections 496-500 of laws relating to railroads) to locate a depot upon this line in Middlefield, at a place called the "center," near the churches, the railroad company having designed to locate one above, near the eastern boundary of the town, and one below, near Baileyville. To this petition a hearing was given in July, and after an impartial examination of the matter, and of the different locations proposed, the commissioners, together with the engineer, were unanimous in their disapproval of the location of a depot as asked for by the petitioners.

The large number of signers to the application was, of itself, previous to the hearing, a strong argument in its favor; but it was plainly shown by the evidence that the petitioners, living in a scattered community, could personally, for the most part, be as well accommodated at the places where the company had designed to locate the depots, as at the "center," and it was also shown that at the center no business was done that would require the transportation of a single ton of freight, while at the lower point in question, near Baileyville, a freighting business amounting to nearly 10,000 tons per year could be secured to the road. In addition to these facts, at this lower point, a large community from Durham, representing a railroad business of travel and freight exceeding that of all Middlefield, except Baileyville, desired the depot to be located



near Baileyville for their accommodation. These facts having been proved, and the establishment of three depots within so short a distance of each other, and in a town numbering less than 200 voters, being evidently an unjust requirement, the request of the petitioners was not granted. The official documents given and received by the commissioners upon this matter may be found in the appendix of this report.

## OFFICERS.

<i>President,</i>	JULIUS HOTCHKISS,	Middletown.
<i>Sec. and Treas.,</i>	ALLYN M. COLGROVE,	"
<i>Superintendent,</i>	W. A. WATERBURY,	"

## DIRECTORS.

JULIUS HOTCHKISS, BENJAMIN DOUGLAS, JOHN M. DOUGLASS, NICHOLAS V. FAGAN, CHARLES C. HUBBARD, ALLYN M. COLGROVE, Middletown.

CHAS. A. RAPALLO, EDWARD W. SERRELL, New York.

LUCIEN W. SPERRY, New Haven.

GEORGE GILLMAN, WILLIAM T. GLEASON, Portland.

CHARLES A. BUELL, East Hampton.

## SHEPAUG VALLEY.

*From Litchfield to junction with the Housatonic Railroad at Hawleyville.*

Work upon this road was commenced in autumn, and owing to the favorable season and to the judicious management of officers, has progressed rapidly, so that now more than one-half the entire distance is graded. The company expect to commence the laying of the track in May, and intend to complete the road in September of this year.

Stock for this road to the amount of \$404,000.00 was subscribed for by towns and individuals along its line in about equal proportions, and the right of the way for the greater part of the distance, donated to the company by the land owners.

Great credit is due to the Chief Engineer of the line, Mr. Samuel Stevenson, for judicious management in the settlement of property interests with land owners and others along the route, so that the uncommon circumstance is presented, of a road nearly built, which has not gained the enmity of its near neighbors.

Too often engineers and other officers, in the construction of a road, by unnecessary provocation and quarrels with land owners, incite the ill feeling of almost the entire community through which it passes, which ill will is apt to be retained and continually manifested against a railroad corporation. The claims of justice being always given due weight, amicable adjustment and friendly relations greatly conduce to the interest of both railroad corporation and community.

#### OFFICERS.

*President,* J. DEMING PERKINS, Litchfield.  
*Vice Pres't,* S. H. MITCHELL, Washington.  
*Treasurer,* HENRY R. COIT, Litchfield.  
*Secretary,* GEORGE M. WOODRUFF, Litchfield.  
*Chief Eng'r,* SAMUEL STEVENSON, “

#### DIRECTORS.

J. DEMING PERKINS, HENRY R. COIT, GEORGE M. WOODRUFF,  
 HENRY W. BUEL, EDWIN MCNEIL, GEORGE A. HICKOX, EDWARD  
 W. SEYMOUR, FREDERICK B. HAND, Litchfield.

WILLIAM DEMING, Morris.

SIMEON H. MITCHELL, SETH S. LOGAN, GEORGE C. HITCHCOCK,  
 Washington.

ALBERT L. HODGE, Roxbury.

## ACCIDENTS.

The whole number of accidents reported for the year is 75 ; of which 46 were fatal, 29 not fatal.

January 1, 1870. A. H. M. Pratt was run over and killed by a switching engine on the Hartford and New Haven Railroad in Meriden. He was said to be partially deaf.

January 21. Joseph Battersey, a laboring man living at Meriden, was struck by an engine and seriously injured on the Hartford and New Haven Railroad. He appeared to be placing himself on the track with the intention of committing suicide.

January 24. Wm. Murphy, an employee of the Hartford and New Haven Railroad Company, had one foot crushed in attempting to get on a gravel train in motion.

February 21. Wm. Cough was run over and killed on the Naugatuck road. He was seen sitting on the track and known to have been intoxicated.

February 2. Charles Rand, an employee of the Hartford and New Haven Railroad Company, had his foot caught in a frog-casting and crushed by a passing engine.

March 3. Michael Hallahan, laborer on a gravel train of the Hartford, Providence, and Fishkill road, had his hand crushed on a dump car.

March 31. John Carney, in attempting to get on a train at Walnut street crossing in Hartford, had his foot crushed, on the Hartford, Providence, and Fishkill.



April 6th. Mrs. Michael Delay, of Thomaston, walking on the track of the Naugatuck road was struck by an engine and had one foot crushed. She was apparently intoxicated.

April 7. M. S. Crosley, of Danbury, jumped from the cars while in motion approaching the station on the Danbury and Norwalk Railroad, and was struck by a baggage car backing on another track, and instantly killed.

April 11. George Taft, brakeman on a freight train of the Norwich and Worcester Railroad, broke his arm while coupling cars at Norwich.

April 25. Joseph Allen, attempting to get on a freight train of the New York and New Haven Railroad while in motion, at Fairfield Station, was thrown under the cars and his head severed from his body.

April 28. Ira Roberts, a boatman, was struck by a passenger train of the Hartford and New Haven Railroad, near Windsor Locks, and received injuries which proved fatal. He stepped from one track to avoid an up train, just in time to be in front of the down passenger train on the other.

May 2. Michael O'Neil, walking on the track at Willimantic, was killed by an engine of the Hartford, Providence, and Fishkill.

May 5. A man, name unknown, was struck by an engine of the New York and New Haven Railroad, and fatally injured.

May 13. Wm. Andrews, a water boy, attempting to get on a train of the New York and New Haven Railroad, fell between two flat cars, was run over and fatally injured.

May 15. James Wood, walking on the track of the Hartford and New Haven Railroad, about half of a mile below Hartford, was run over and had his feet injured. He was intoxicated.

May 27. A man named Sullivans, said to be a "tramp," was struck and killed by an engine of the New York and Railroad New Haven.

May 30. Bridget Finnegan was found dead on the track near Newington, having been struck by some train of the Hartford and New Haven, or the Hartford, Providence, and Fishkill Railroad.

June 10. A man named Henachaer, while attempting to get on a freight train of the New York and New Haven at Bridgeport, which was in motion, fell between the cars and was fatally injured.

June 17. John W. Arnold was fatally injured at a road crossing in Moosup. He jumped from a wagon to escape danger, and was caught by the engine on the Hartford, Providence, and Fishkill Railroad.

June 17. James Cairnes, a brakeman on the Hartford and New Haven Railroad, jumped from an engine in motion, was run over and fatally injured at New Haven.

June 18. Philip Carney in the employ of the New London Northern Railroad Company, was slightly hurt on a hand car near Norwich.

July 5. A man named Bird, while walking on the track, was struck by an engine of the New York and New Haven Railroad near Stratford, and seriously injured.

July 12. T. B. Atwater, an employee of the New York and New Haven, was run over by a switch engine in the yard of that company at New Haven, and killed.

July 16. Wm. W. Jencks, a passenger on an excursion train of the New London Northern Railroad, while standing on the platform of the car and leaning out, came in contact with a bridge which the train was passing through near Stafford, and was instantly killed.

July 26. William Rice, foreman of telegraph repairs, was knocked from a car, run over and killed, while unloading telegraph poles between New Haven and North Haven Station, on the New Haven, Middletown, and Willimantic Railroad.

August 9. Samuel Kay was found dead in the depot yard of the New York, Providence, and Boston Railroad Company at Groton ; supposed to have been run over by the night mail train.

August 6. A boy by the name of Charles Frasick, had an arm broken by a barrel thrown from a train of the Hartford, Providence, and Fishkill at Hartford.

August 15. An unknown man walking on the track, was run over and killed near Greenwich Station, on the New York and New Haven Railroad.

August 18. Mr. A. Peck's child was struck and seriously injured, by a train of the Hartford, Providence, and Fishkill, as it was leaving Waterbury.

August 20. A. M. Tyler, of Meriden, while driving a milk wagon across the track of the Hartford and New Haven Railroad, was struck by a switching engine, and fatally injured. He was partially deaf.

September 1. William Splain, laborer on a gravel train of the New Haven, Middletown, and Willimantic Railroad, had his foot crushed while attempting to get on the cars at Middlefield.

September 14. Wm. M. Graves, a brakeman on the Hartford, Providence, and Fishkill night freight train, fell between the cars, and was instantly killed.

September 15. An elderly man named Freeman, together with a young man, while driving at a crossing at Jewett city, were struck by a train of the Hartford, Providence, and Fish-



kill Railroad. The wagon was demolished, and the elderly man seriously injured.

September 19. Edward Bowers, of Daysville, while attempting to get on a freight train of the Norwich and Worcester Railroad, slipped, and the train passed over his foot.

September 19. Frederick Smith, a laborer, was run over by a train of the Hartford and New Haven Railroad, near Berlin, and instantly killed. He was intoxicated at the time.

September 23. Matthew Doran, laborer on a gravel train of the New Haven, Middletown, and Willimantic Railroad, was killed by jumping off the train while in motion.

September 27. Benjamin C. Cable, attempting to get on a train as it was leaving the Fair Grounds, at Norwalk, lost his footing, fell, and was seriously injured.

September 28. Eloy Pitcher was instantly killed, while walking in a covered bridge, by a train on the Housatonic Railroad, near New Milford. He was said to be intoxicated.

October 3. James Lombard, a deaf and dumb man, was struck and killed, about a mile west of Milford station, on the New York and New Haven Railroad.

October 10. John Kelley, a brakeman in the employ of the Norwich and Worcester Railroad Company, fell from a freight train, near Waterford, and was instantly killed.

October 13. A woman, apparently a "tramp," and intoxicated, name unknown, was killed while walking on the track of the New York and New Haven Railroad, near Noroton station.

October 15. Thaddeus C. Lyman was killed by one of the Shore Line trains, while crossing the bridge at Shaw's Neck, near New London. He was also crossing the bridge, and stepped to one side, but was struck by the engine.

October 15. Royal G. Roberts, walking on the track in a state of intoxication, was struck by a train, his arm broken, and otherwise injured, near Derby, on the Naugatuck Railroad.

October 16. Francis Higgins, an employee of the Hartford and New Haven Railroad, was killed in Hartford, by the night mail train, going north. He had been seen but a short time previous, in a state of intoxication.

October 17. Mrs. Sullivan, standing at a crossing for a train to pass, was struck by one going in an opposite direction, and killed, at Southport, on the New York and New Haven Railroad.

October 24. Eugene Moriarty, attempting to get on a train in motion, was run over and seriously injured, on the Watertown and Waterbury Railroad.

November 1. Leonard Packer, baggage master, at Naugatuck, was seriously injured, endeavoring to put a large trunk in the cars, while the train was in motion. He was caught between the trunk and a freight car, standing on a switch track.

November 1. Richard McDonald, walking on the track at Stamford, was struck and killed by an engine of the New Canaan Railroad.

November 4. Patrick Larkin, walking by the side of the track near Westerly, was struck by an express train of the New York, Providence and Boston Railroad, and had one arm broken. Said to have been intoxicated.

November 16. A child on the track of the New York and New Haven Railroad at Fairfield, was seriously injured by a freight car.

November 23. Andrew Dalrymple, an employee of the Naugatuck Railroad Company in the car yard at Bridgeport,

was caught by a rope and thrown under a car in switching. He died from his injuries.

November 21. An unknown man was run over and killed at Stratford station, on the New York and New Haven Railroad. He stepped from one track to avoid an approaching train, and was caught on the other by a train going in the opposite direction.

November 23. Jerry Kennedy, of Meriden, went upon the track at Main Street crossing, after the gates were closed. He was caught by the engine and had one foot crushed. He admits he heard the bell and saw the train.

November 26. Salem Devereau, an employee of the Hartford, Providence and Fishkill Railroad Company, had an arm broken by the crank of the hand car.

December 1. James Flood, brakeman on the Naugatuck, had a hand badly crushed coupling cars.

December 2. Mary Sullivan was struck and instantly killed by an express train of the Hartford and New Haven, near Wallingford.

December 9. Joseph Skinner, an infirm man, 87 years of age, was walking across the bridge of the New London Northern Railroad at New London, and stepping to one side as a passenger train approached, his foot caught and he fell into the river. He was immediately rescued, but was so shocked or chilled by the fall into the water he died soon after.

December 9. Augustus Wood, together with his father, attempting to drive across the track of the Housatonic Railroad at Bridgeport, saw a switch engine approaching and just upon them. The young man jumped from the carriage, was caught by the engine, and was killed; the father remained, and was unhurt.



December 13. John Christian Haas threw himself in front of an approaching engine on the Hartford and New Haven Railroad, near Meriden, and was instantly killed. Found by a jury of inquest to have been insane.

December 13. Patrick Flaherty was found dead on the track of the New Haven and Northampton Railroad, at New Haven. The manner of his death unknown. Supposed to have been murdered.

December 15. James Conlon, a brakeman on the Hartford and New Haven Railroad, fell from a freight train while in motion, near Windsor Locks, and was fatally injured.

December 17. Mr. Barrows, attempting to get on a train of the Shore Line in motion, at Guilford, had his foot crushed.

December 17. Joel Atwood, an aged man, attempting to drive across the track of the Naugatuck Railroad at Manhan Crossing, in Waterbury, was run over and killed.

December 21. William Fallon, a boy 16 years of age, made an attempt to get on a freight train of the Hartford and New Haven Railroad, near Meriden, and falling to the track received fatal injuries.

December 21. Mrs. R. W. Scott, the wife of the Station Agent of the Norwich and Worcester Railroad Company at Central Village, attempted to swing the water pipe out of the way of an approaching train, and the platform being very icy, she slipped across the track, was run over and fatally injured.

December 23. The Rev. Collins Stone, Principal of the American Deaf and Dumb Asylum at Hartford, together with his friend Rev. James Strong of Minnesota, while driving across the track of the Hartford and New Haven Railroad on Sigourney Street in Hartford, were struck by a passenger train from New Haven. Mr. Stone was instantly killed, and Mr. Strong very severely injured.

December 29. Joseph Barton of Wallingford, while in a state of intoxication, was run over and killed by an express train of the Hartford and New Haven Railroad at New Haven.

January 8, 1871. F. Beales, a brakeman on the New York Providence and Boston Railroad, was slightly hurt in coupling cars.

January 24. Patrick Riley, brakeman on the New Haven, Middletown and Willmantic Railroad, was seriously injured while coupling cars at Middlefield.

January 27. Thomas Kuniff, a brakeman on a freight train of the Norwich and Worcester Railroad, was killed by coming in contact with the Shetucket Bridge, while on the train in motion.

January 30. F. Ray was run over and killed by a train of the New Haven and Northampton Railroad a short distance below Plainville Station. He was seen a short time previously very much intoxicated.

February 4. Patrick Reardon, a trackman in the employ of the Hartford, Providence and Fishkill Railroad Company, was thrown from a hand-car and fatally injured.

March 16. An unknown man, was found, severely injured, upon the track of the New York, Providence and Boston Railroad near Mystic. He had fallen from the train in a state of intoxication.

TABLE I.

*Showing the number of Passengers carried over the Railroads each year, for a period of eighteen years, with a list of accidents.*

Year.	No. of Passengers.	Accidents.	Fatal.	Not Fatal.
1853	3,202,490	35	20	15
1854	2,938,698	29	21	8
1855	2,861,419	25	13	12
1856	2,697,501	33	18	15
1857	3,036,838	19	17	2
1858	2,573,516	34	20	14
1859	2,623,991	46	25	21
1860	2,967,440	34	14	20
1861	2,824,556	34	26	8
1862	2,968,071	39	31	8
1863	3,789,583	45	38	7
1864	4,812,513	119	52	67
1865	5,211,231	135	43	92
1866	5,600,065	44	27	17
1867	6,841,451	54	35	19
1868	8,057,922	78	37	41
1869	6,797,462	65	32	28
1870	8,032,638	75	46	29
Total,	78,158,086	943	515	423



TABLE II.  
*Classification of Accidents.*

RAILROADS.	Passengers.	Employees.	Intoxicated.	At Crossings.	Jumping on and off.	Walking on track.	Coupling Cars.	Falling from train.	Switching.	Found Dead.	Stealing Ride.	All others.	Fatal.	Not Fatal.	Whole Number Injured.
N. Y. & New Haven,		2	1	1	2	8			1		1		11	2	13
Hartford & N. H., -		5	5	4	1	9		1	1	1	1	2	13	6	19
Norwich & Worcester,		3			1		1	1				2	3	2	5
H., P. & Fishkill, -		4		2		2		1			1	1	4	6	10
New London Northern,	1	1				1						1	2	1	3
Housatonic, - - -			1	1		1							2		2
Naugatuck, - - -		3	3	1		3	1		1				3	4	7
N. Y., Prov. & Boston,		1	2			1	1	1		1			1	3	4
N. H. & Northampton,			1			1				1			2		2
Shore Line, - - -					1	1							1	1	2
Danbury & Norwalk,	1				1			1					1	1	2
Rockville, - - - -															
New Canaan, - - -						1							1		1
N. Y., H. & Northern,															
New Haven & Derby,															
B., H. & Erie, - -															
Watertown & W., -					1									1	1
Connecticut Valley, -															
Connecticut Western,															
Ridgefield & N. Y., -															
N. H., Mid, & Wil., -		3			2		1					1	2	2	4
Shepaug Valley, - -															
Totals, - - -	2	22	13	9	9	28	4	5	3	3	3	7	46	29	75

TABLE III.

RAILROADS.	Capital.	Capital Paid in.	Fund and Funding Debt	Rate of Interest.
New York & New Haven, -	\$ 9,000,000.00	\$ 6,750,000.00	\$ 1,546,193.38	6
Hartford & New Haven, -	6,300,000.00	4,800,000.00	754,000.00	6
Norwich & Worcester, -	2,825,000.00	2,364,400.00	790,884.32	5½
Hartford, Prov. & Fishkill,	4,500,000.00	2,037,939.38	2,255,500.00	7
New London Northern, -	1,003,500.00	1,003,500.00	724,000.00	7
Housatonic, - - -	2,000,000.00	2,000,000.00	453,933.91	7
Naugatuck, - - -	2,000,000.00	1,864,400.00	170,000.00	7
New York, Prov. & Boston,	2,000,000.00	1,887,348.00	1,025,000.00	
New Haven & Northampton,	1,800,000.00	1,800,000.00	1,586,204.88	6 & 7
Shore Line, - - -	994,300.00	994,300.00	200,000.00	7
Danbury & Norwalk, -	400,000.00	400,000.00	300,000.00	7
Rockville - - -	100,000.00	97,750.00	39,400.00	
New Canaan, - - -	200,000.00	163,905.08	81,445.73	7
N. Y., Housatonic & North'n,	1,000,000.00	221,700.00	174,900.00	7
New Haven & Derby, -	426,000.00		525,000.00	7
Boston, Hartford & Erie, -	No Report.			
Watertown & Waterbury, -	118,200.00	115,532.92	17,000.00	7
Connecticut Valley, -	1,500,000.00	789,250.82	194,752.09	
Connecticut Western, -	1,650,000.00	1,419,305.38	81,500.00	
Ridgefield & New York, -	1,250,000.00	114,000.00		
New Haven, Mid. & Wil., -	500,000.00	500,000.00	4,700,918.70	
Shepaug Valley, - - -	1,000,000.00	160,770.00		
Totals, - - -	40,567,000.00	20,484,101.58	15,620,633.01	

TABLE IV.

RAILROADS.						Length of Road.	Length in this State.	Length of Double Track.	In Progress of Construction.	Highways Crossed at Grade.
New York & New Haven,	-	-	-	-	-	62	47	62		134
Hartford & New Haven,	-	-	-	-	-	75	69	62		75
Norwich & Worcester,	-	-	-	-	-	66	50			74
Hartford, Prov. & Fishkill,	-	-	-	-	-	122	96	5		137
New London Northern,	-	-	-	-	-	100	57			82
Housatonic,	-	-	-	-	-	124	74			81
Naugatuck,	-	-	-	-	-	57	57			52
New York, Prov. & Boston,	-	-	-	-	-	62	17			4
New Haven & Northampton,	-	-	-	-	-	99	62			82
Shore Line,	-	-	-	-	-	50	50			88
Danbury & Norwalk,	-	-	-	-	-	23	23			54
Rockville,	-	-	-	-	-	5	5			6
New Canaan,	-	-	-	-	-	8	8			6
New York, Housatonic & Northern,	-	-	-	-	-	40	16			
New Haven & Derby,	-	-	-	-	-	10	10		10	
Boston, Hartford & Erie,	-	-	-	-	-	113	16		100	130
Watertown & Waterbury,	-	-	-	-	-	4	4			3
Connecticut Valley,	-	-	-	-	-	44	44		44	
Connecticut Western,	-	-	-	-	-	67	67		67	57
Bridgfield & New York,	-	-	-	-	-	23	23		23	13
New Haven, Mid. & Willimantic,	-	-	-	-	-	49	49		27	17
Shepaug Valley,	-	-	-	-	-	32	32		32	32
Totals,	-	-	-	-	-	1235	876	129	303	1127



TABLE V.

RAILROADS.	When Chartered.	Commenced Operations.	Cost of Road and Equipments.	Cost of Road and Equipm'ts per mile.
New York & New Haven,	1844	1848	\$ 7,043,480.04	\$113,604.51
Hartford & New Haven,	1833	1838	4,070,849.57	52,944.66
Norwich & Worcester,	1832	1840	2,613,694.21	39,601.42
Hartford, Prov. & Fishkill,	1836	1842	4,719,751.39	28,604.52
New London Northern,	1847	1849	1,530,330.78	15,303.31
Housatonic,	1836	1842	2,105,558.52	16,980.22
Naugatuck,	1845	1849	2,041,451.77	35,814.94
New York, Prov. & Boston,	1832	1839	2,568,000.00	41,419.35
New Haven & Northampton,	1846	1848	2,897,092.54	29,263.56
Shore Line,	1848	1852	No Report.	
Danbury & Norwalk,	1849	1852	668,862.57	29,080.98
Rockville,	1857	1863		
New Canaan,	1866	1868	245,982.73	30,747.84
N. Y., Housatonic & N'rn,	1863	1868	394,087.99	9,852.19
New Haven & Derby,	1864			
Boston, Hartford & Erie,	1863	1867		
Watertown & Waterbury,	1869	1870	130,733.17	32,683.29
Connecticut Valley,	1868			
Connecticut Western,	1868			
Ridgefield & New York,	1867			
New Haven, Mid. & Wil.,	1867	1870	4,229,205.82	
Shepaug Valley,	1868			
Totals,			35,260,081.10	

TABLE VI.

RAILROADS.	Cost of Fuel	Cost of Fuel per Mile Run.	Cost of Oil and Water.
New York & New Haven, -	\$108,378.24	13 $\frac{1}{4}$ cents.	\$ 23,007.71
Hartford & New Haven, -	89,719.89	12 $\frac{5}{7}$ "	14,520.46
Norwich & Worcester, -	57,928.12	16 $\frac{9}{34}$ "	5,954.32
Hartford, Prov. & Fishkill,	107,264.27	19 $\frac{3}{5}$ "	11,904.16
New London Northern, -	47,535.35	13 $\frac{8}{35}$ "	6,553.92
Housatonic, - - -	50,932.59	16 $\frac{6}{31}$ "	5,137.23
Naugatuck, - - -	25,587.05	10 $\frac{21}{33}$ "	4,801.52
N. Y., Prov. & Boston, -	60,993.16	17 $\frac{337}{338}$ "	9,641.98
New Haven & Northampton,	41,324.11	17 $\frac{1}{6}$ "	6,713.00
Shore Line, - - -	25,704.13		5,880.98
Danbury & Norwalk, -	11,795.62	12 $\frac{2}{3}$ "	No Report.
Rockville, - - -			
New Canaan, - - -	2,089.14	10 $\frac{7}{20}$ "	337.91
N. Y., Housatonic & North'n,	1,054.05	9 $\frac{2}{5}$ "	202.00
New Haven & Derby, -			
Boston, Hartford & Erie, -	30,528.52	7 $\frac{2}{3}$ "	2,377.57
Watertown & Waterbury, -			
Connecticut Valley, - -			
Connecticut Western, - -			
Ridgefield & New York, -			
New Haven, Mid. & Wil., -			
Shepaug Valley, - - -			
Totals, - - -	660,834.24		97,032.76

TABLE VII.

RAILROADS.	Repairs of road Exclusive of Bridges.	Repairs of Bridges.	Total Main- tainance of Way.
N. Y. & New Haven,	\$329,731.10	\$26,896.04	\$396,809.67
Hartford & New Haven,			260,872.84
Norwich & Worcester,	71,386.90	993.47	82,635.39
H., Prov. & Fishkill, -	195,012.11	15,774.64	220,569.84
New London Northern,	88,744.88	8,560.44	110,897.00
Housatonic, - -	153,118.33	6,657.00	240,402.07
Naugatuck, - -	119,619.05	7,654.59	No Report.
N. Y., Prov. & Boston,	114,371.29	13,999.38	128,370.67
N. H. & Northampton,	80,990.28	3,342.88	88,962.86
Shore Line, - -	36,038.04	7,814.35	46,338.47
Danbury & Norwalk,	29,075.56	983.77	30,653.60
Rockville, - - -			
New Canaan, - -	2,640.00		2,640.00
N. Y., H. & Northern,	2,848.80		2,848.80
New Haven & Derby,			
Boston, Hartford & Erie,	48,628.24	2,999.22	60,884.22
Watertown & Waterbury,			
Connecticut Valley, -			
Connecticut Western, -			
Ridgefield & New York,			
N. H., Mid. & Wil., -			
Shepaug Valley, -			
Totals, - -	\$1,272,204.58	\$96,675.78	\$1,672,885.43



TABLE VIII.

RAILROADS.	Engines.	Passenger Cars.	Merchandise Cars.	Men Employed.
New York & New Haven, - -	36	93	418	868
Hartford & New Haven, - -	31	33	584	1,119
Norwich & Worcester, - -	21	20	642	381
Hartford, Prov. & Fishkill, - -	25	30	284	625
New London Northern, - -	15	15	219	300
Housatonic, - - - -	14	15	285	285
Naugatuck, - - - -	9	12	250	
New York, Prov. & Boston, - -	17	19	131	420
New Haven & Northampton, - -	16	15	195	400
Shore Line, - - - -	10	14	32	160
Danbury & Norwalk, - - -	6	6	62	60
Rockville, - - - -				
New Canaan, - - - -	2			11
New York, Housatonic & Northern,	1	1	3	
New Haven & Derby, - - -				
Boston, Hartford & Erie, - -	23	35	300	511
Watertown & Waterbury, - -				
Connecticut Valley, - - -				
Connecticut Western, - - -				
Ridgefield & New York, - -				
New Haven, Mid. & Willimantic, -	3	4		25
Shepaug Valley, - - - -				
Totals, - - - -	229	312	3,405	5,165

TABLE IX.

RAILROADS.	Miles Run by Passenger Trains.	Miles Run by Freight Trains.	Total Miles Run.
New York & New Haven, -	616,874	162,905	818,024
Hartford & New Haven, -	350,261	247,694	700,516
Norwich & Worcester, - -	138,527	191,613	349,958
Hartford, Prov. & Fishkill, -	313,359	171,282	544,772
New London Northern, -	229,224	121,639	358,735
Housatonic, - - - -	161,922	142,034	314,416
Naugatuck, - - - -	84,845	121,315	234,481
New York, Prov. & Boston, -			338,959
New Haven & Northampton,	142,891	97,644	240,535
Shore Line, - - - -	No Report.		
Danbury & Norwalk, - -	47,950	21,900	93,222
Rockville, - - - -			
New Canaan, - - - -	19,744		20,144
N. Y., Housatonic & Northern,	10,800		10,800
New Haven and Derby, -			
Boston, Hartford & Erie, -	252,501	106,447	396,556
Watertown & Waterbury, -			
Connecticut Valley, - -			
Connecticut Western, - -			
Ridgefield & New York, -			
New Haven, Mid. & Wil., -			17,550
Shepaug Valley, - - - -			
Totals, - - - -	2,368,907	1,384,473	4,438,668

TABLE X.

RAILROADS.	Passengers Carried in Cars.	Passengers Carried One Mile.	Passengers Carried to and from other r'ds one mile.
New York & New Haven,	2,429,588	72,362,656	29,337,120
Hartford & New Haven, -	1,100,610	31,387,920	16,721,659
Norwich & Worcester, -	304,393	5,905,914	2,010,420
Hartford, Prov. & Fishkill,	1,066,281	14,447,202	2,935,463
New London Northern, -	422,035	6,380,735	
Housatonic, - - -	228,693	4,323,599	1,979,337
Naugatuck, - - -	331,885		
N. Y., Prov. & Boston, -	532,049		
N. H. & Northampton, -	256,394	3,784,198	1,091,396
Shore Line, - - -	No Report.		
Danbury & Norwalk, -	131,501	1,549,669	443,920
Rockville, - - -			
New Canaan, - - -	37,829	227,091	
N. Y., H. & Northern, -	7,620	38,100	
New Haven & Derby, -			
Boston, Hartford & Erie,	1,184,360	11,603,003	3,672,663
Watertown & Waterbury,			
Connecticut Valley, -			
Connecticut Western, -			
Ridgefield & New York, -			
New Haven, Mid. & Wil.,		27,041	
Shepaug Valley, - -			
Totals, - - -	8,032,638	152,057,128	58,191,978



TABLE XI.

RAILROADS.	Tons of Merchandise Transported.	Tons carried one mile.	Tons carried from other Roads.
New York & New Haven, -	162,146	7,560,064	5,204,274
Hartford & New Haven, -	550,814	22,636,870	
Norwich & Worcester, -	225,535	9,312,721	2,698,458
Hartford, Prov. & Fishkill, -	226,481	5,051,366	2,606,489
New London Northern, -	209,395	7,088,540	
Housatonic, - - -	200,872	13,458,424	
Naugatuck, - - -	176,200		
New York, Prov. & Boston, -	No Report.		
New Haven & Northampton, -	131,723	4,792,732	199,959
Shore Line, - - -	No Report.		
Danbury & Norwalk, - -	43,587	939,324	244,656
Rockville, - - - -			
New Canaan, - - - -	3,832	30,150	
N. Y., Housatonic & North'n, -	3,475	17,375	
New Haven & Derby, - -			
Boston, Hartford & Erie, -	214,191	5,936,796	5,853,763
Watertown & Waterbury, -			
Connecticut Valley, - -			
Connecticut Western, - -			
Ridgefield & New York, -			
New Haven, Mid. & Wil., -			
Shepaug Valley, - - -			
Totals, - - - -	2,148,251	76,824,362	16,807,599

TABLE XII.

RAILROADS.				Gross Earnings.	Net Earnings.	Per Cent. Dividends.	Undivided Surplus.
New York and New Haven,	-	-	-	\$2,299,133.26	\$714,743.97	10	\$ 39,743.97
Hartford and New Haven,	-	-	-	1,929,719.94	645,613.99		No report.
Norwich and Worcester,	-	-	-	614,199.54	148,554.80	10	241,539.45 *
Hartford, Providence and Fishkill,	-	-	-	888,754.98	121,393.75		
New London and Northern,	-	-	-	469,695.36	72,963.43	8	No report.
Housatonic,	-	-	-	752,097.55	147,024.95	12	44,508.11
Naugatuck,	-	-	-	615,562.41	196,565.56	15	No report.
New York, Providence and Boston,	-	-	-	746,089.21	265,333.72	*3½&4	
New Haven and Northampton,	-	-	-	372,836.75	37,216.78		
Shore Line,	-	-	-	316,232.08	94,128.65		
Danbury and Norwalk,	-	-	-	175,444.85	82,163.10	16	15,857.85
Rockville,	-	-	-				
New Canaan,	-	-	-	15,598.48			
New York, Housatonic and Northern,	-	-	-	6,845.07			
New Haven and Derby,	-	-	-				
Boston, Hartford and Erie,	-	-	-	470,732.39			
Watertown and Waterbury,	-	-	-				
Connecticut Valley,	-	-	-				
Connecticut Western,	-	-	-				
Ridgefield and New York,	-	-	-				
New Haven, Middletown and Willimantic,	-	-	-				
Shepaug Valley,	-	-	-				
Totals,	-	-	-	\$9,672,946.77	\$2,525,702.69		\$341,649.38

\* Two Dividends.

TABLE XIII.

*Names of Railroad Commissioners, Commencement of Term  
and Residence.*

Zacharus W. Bissell,	Sharon,	1853.	
Moses B. Harvey,	Stafford,	1853.	
John Stewart,	Chatham,	1853.	resigned.
John Gould,	Fairfield,	1854.	to fill vacancy.
Henry Hammond,	Killingly,	1856.	to fill vacancy.
Patten Fitch,	Fairfield,	1857.	
John Gould,	Fairfield,	1858.	
George Wadhamis,	Torrington,	1859.	
Henry Hammond,	Killingly,	1860.	
Joseph W. Dudley,	Madison,	1861.	deceased.
John J. Jacques,	Waterbury,	1862.	
Abel Scranton,	Madison,	1862.	to fill vacancy.
Samuel Fitch,	Stafford,	1863.	
Abel Scranton,	Madison,	1864.	
Wm. A. Cummings,	Darien,	1865.	
Samuel Fitch,	Stafford,	1866.	
Albert Austin,	Suffield,	1867.	
James Pike,	Sterling,	1868.	
Charles H. Denison,	Stonington,	1869.	resigned.
Simeon Gallup,	Groton,	1870.	to fill vacancy.
John I. Hutchinson,	Essex,	1870.	



TABLE XIV.

*Abstract of the foregoing Tables.*

Chartered Capital of Railroads, - - -	\$40,567,000.00
Capital paid in, - - - - -	\$29,484,101.58
Amount of Funded and Floating Debts, - -	\$15,620,633.01
Cost of Equipment of Roads, - - - -	\$35,260,081.10
Repairs of Roads, - - - - -	\$1,272,204.58
Repairs of Bridges, - - - - -	\$96,685.78
Total Cost of Maintenance of Way, - -	\$1,672,885.43
Cost of Fuel, - - - - -	\$660,834.24
Cost of Oil and Waste, - - - - -	\$97,032.76
Gross Earnings, - - - - -	\$9,672,946.77
Net Earnings, - - - - -	\$2,525,702.69
Undivided Surplus, - - - - -	\$341,649.38
Number of Passengers carried, - - -	8,032,638
Tons of Merchandise transported, - - -	2,148,251
Number of miles run by trains, - - -	4,438,668
Number of Engines, - - - - -	229
Number of Passenger Cars, - - - - -	312
Number of Merchandise Cars, - - - -	3,405
Number of Men employed, - - - - -	5,165
Number of Highways crossed at grade, - -	1,127
One mile of Railroad to every 5.3 square miles territory.	
One mile of Railroad to every 614.1 inhabitants.	



## NEW YORK AND NEW HAVEN RAILROAD.

*Return of the New York and New Haven Railroad, under the Act of  
1853, to the General Railroad Commissioners.*

Capital Stock,	\$9,000,000.00
Increase of Capital, since last report,	
Capital paid in, per last report,	6,750,000.00
Capital paid in, since last report,	
Total Amount of Capital Stock paid in,	6,750,000.00
Funded debt, per last Report,	1,061,500.00
Funded debt, paid since last Report,	
Funded debt, increase of, since last Report,	
Total present amount of funded debt,	1,061,500.00
Floating debt, per last Report,	192,730.18
Floating debt, paid since last Report,	
Floating debt, increase of, since last Report,	291,963.20
Total present amount of floating debt,	484,693.38
Total present amount of funded and float- ing debt,	1,546,193.38
Average rate of interest, per annum, paid during the year,	6 per cent.

### COST OF ROAD AND EQUIPMENTS.

Last Report.    Present Report.

For graduation and Masonry, per last Report,	
For graduation and Masonry, paid during the past year,	
Total amount expended for gradua- tion and masonry,	
For wooden bridges, per last report,	
For wooden bridges, paid during the past year,	



Total amount expended for wooden bridges, . . . . .	
Total amount expended for iron bridges, if any . . . . .	
For superstructure, including iron, per last Report, . . . . .	\$6,143,480.04
For superstructure, including iron, paid during the past year, . . . . .	
Total amount expended for superstructure, including iron, . . . . .	
For stations, buildings, and fixtures, per last Report, . . . . .	
For stations, buildings, and fixtures, paid during the past year, . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	
For land, land-damages, and fences per last Report, . . . . .	
For land, land-damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land-damages, and fences, . . . . .	
For locomotives per last Report, . . . . .	\$900,000.00
For locomotives paid during the past year, . . . . .	
Total amount expended for locomotives, . . . . .	
For passenger and baggage cars, per last Report, . . . . .	
For passenger and baggage cars, paid during the past year . . . . .	
Total amount expended for passenger and baggage cars, . . . . .	
For merchandise cars, per last Report, . . . . .	
For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchandise cars, . . . . .	
For engineering, per last Report, . . . . .	

For engineering, paid during the past year, . . . . .	} Included above.
Total amount expended for engineering, . . . . .	
For agencies and other expenses, per last Report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments, . . . . .	\$7,043,480.04

## CHARACTERISTICS OF ROAD.

Length of road, . . . . .	62 $\frac{2.5}{100}$ miles.
Length of single main track, . . . . .	62 $\frac{2.5}{100}$ "
Length of double main track, . . . . .	62 $\frac{2.5}{100}$ "
Length of branches owned by the company, stating whether they have a single or double track, . . . . .	none.
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	11 $\frac{2.5}{100}$ miles.
Weight of rail, per yard, in main road, . . . . .	62 pounds.
Weight of rail, per yard, in branch road, . . . . .	
Specify the different weights per yard, . . . . .	
Maximum grade, with its length, in main road, 46 $\frac{3}{10}$ feet, $\frac{7.75}{1000}$ mile.	
Maximum grade, with its length, in branch roads, . . . . .	
Total rise and fall in main roads, . . . . .	1646 feet.
Total rise and fall in branch roads, . . . . .	
Shortest radius of curvature, with length of curve, in main road, . . . . .	573 feet, $\frac{57}{1000}$ miles.
Shortest radius of curvature, with length of curve, in branch roads, . . . . .	
Total degrees of curvature, in main road, . . . . .	2,485 $\frac{12}{60}$
Total degrees of curvature, in branch roads, . . . . .	
Total length of straight line, in main road, . . . . .	41 $\frac{6.3}{100}$
Total length of straight line in branches, . . . . .	
Aggregate length of wooden truss bridges, . . . . .	2575 feet.
Aggregate length of all other wooden bridges, . . . . .	3719 "
Aggregate length of iron bridges, . . . . .	756 "
Whole length of road unfinished on both sides, . . . . .	

Number of public ways crossed at grade, . . .	134
Number of railroads crossed at grade, . . .	none.
Remarks, . . . . .	
Way stations for express trains, . . . . .	3
Way stations for accommodation trains, . . . . .	25
Flag station, . . . . .	
Whole number of way stations, . . . . .	28
Whole number of flag stations, . . . . .	

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	616,874
Miles run by freight trains, . . . . .	162,905
Miles run by other trains, . . . . .	38,245
Total miles run, . . . . .	818,024
Number of passengers carried in the cars, . . . . .	2,429,538
Number of passengers carried one mile, . . . . .	72,362,656
Number of tons of merchandise carried in the cars, . . . . .	162,146
Number of tons of merchandise carried one mile, . . . . .	7,560,064
Number of passengers carried one mile, to and from other roads, . . . . .	29,337,120
Number of tons carried one mile, to and from other roads, . . . . .	5,204,274
Rate of speed adopted for express passenger trains, including stops, . . . . .	35 miles per hour.
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	30 and 35 miles per hour.
Rate of speed adopted for accommodation trains, . . . . .	28 miles per hour.
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	23 miles per hour.
Average rate of speed adopted for freight trains, including stops and detentions, . . . . .	15 miles per hour.
Estimated weight in tons of passenger cars, (not including passengers,) hauled one mile, . . . . .	63,000,000
Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile. . . . .	26,550,000



## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, exclusive of wooden bridges, including renewals of iron, . . .	\$329,731.10
Repairs of wooden bridges, . . .	26,896.04
For renewals of iron including laying down, . . . . .	
For wages for switchmen, average per month, . . . . \$50.00	36,503.25
For wages of gate-keeper, average per month, . . . .	
For wages of signal-men, average per month, . . . . \$40.00	
For wages of watchmen, average per month, . . . . \$45.00	
Number of men employed, exclusive of those engaged in construction,	
For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,)	
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool houses, . . . .	3,679.28
Total for maintenance, . . . .	396,809.67
Loss and damage of goods and baggage, . . . .	1,969.36
Damages for injuries to persons, . . . .	3,780.08
Damages to property, including damages by fire, . . . .	1,085.52
Damages for cattle killed on road, . . . .	230.00

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## MOTIVE POWER AND CARS.

For repairs of tools and machinery, . . . .	11,220.16
For repairs of locomotives, . . . .	63,518.17
For new locomotives to cover depreciation,* . . . .	
For repairs on passenger cars, . . . .	85,499.19
For new passenger cars, to cover depreciation, . . . .	

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\* Made whole by new equipment, included above.

For repairs of merchandise cars,	\$26,405.29	
For new merchandise cars, to cover de- preciation,*		
For repairs of gravel and other cars,		
Total for maintenance of motive power, and cars,	186,642.81	
Number of engines,		36
Number of passenger cars,		93
Number of baggage cars,		25
Number of merchandise cars, including platform cars,		418
Number of gravel cars,		25

## MISCELLANEOUS.

For fuel used by engines during the year, viz:	
Wood,	\$14,434.58
Coal,	93,943.69
For oil used by cars and engines,	18,538.86
For waste and other material used for cleaning,	4,468.85
For salaries, wages, and incidental ex- penses, chargeable to passenger de- partment,	302,170.40
For salaries, wages, and incidental ex- penses, chargeable to freight de- partment,	100,723.48
For gratuities and damages,	7,164.96
For taxes and insurance,	186,669.77
For ferries,	
For repairs of station buildings ac- queducts, fixtures, furniture,	48,093.76
For interest,	92,989.22
For amount paid other companies, in toll for passengers and freight car- ried on their roads, specifying each company,†	85,416.95

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\* Made whole by new equipment, included above.

† Harlem R. R. Haulage by horses.

For amount paid other companies for the use of their roads, specifying each company,*	
For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items,	46,327.32
Total expenditure for working the road,	\$1,584,394.29

## INCOME DURING THE YEAR.

*For Passengers :—*

On main road including branches owned by Company,	\$1,001,901.53
To and from other roads, specifying what,†	738,786.29

*For Freight :—*

On main road, and branches owned by Company,	430,479.21
To and from connecting roads,	
U. S. Mails,	26,546.96
Rents, interest, express receipts, &c.,	101,424.29
Total income	\$2,299,138.26
Net earnings, after deducting expenses,	714,743.97

## DIVIDENDS.

Ten per cent., total,	675,000.00
Surplus not divided,	39,743.97
Surplus last year,	909,550.09
Total surplus,	949,994.06

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Roads and bridges,  
Buildings,  
Engines and cars,

WM. D. BISHOP, *President.*

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\* Harlem R. R. Their share receipts, (deducted from receipts.)

† "Danbury and Norwalk," "Housatonic," "Naugatuck," "New Haven & Northern," "Hartford and New Haven," "Shore Line," and "New Canaan,"



STATE OF CONNECTICUT, }  
COUNTY OF FAIRFIELD, } ss.

BRIDGEPORT,  
March 16, 1871.

Then personally appeared Wm. D. Bishop, President of the New York and New Haven Railroad Company, and subscribed the foregoing report and made oath to the truth of the same, to the best of his knowledge and belief, before me.

WILLIAM E. BARNETT,

*Notary Public.*

## HARTFORD AND NEW HAVEN RAILROAD.

*Return of the Hartford and New Haven Railroad, under the Act of  
1853, for twelve months ending Nov. 30th, 1870.*

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Capital Stock, . . . . .	\$6,300,000.00
Increase of Capital since last Report, . . . . .	3,000,000.00
Capital paid in, per last Report, . . . . .	3,300,000.00
Capital paid in since last Report, . . . . .	1,500,000.00
Total amount of Capital Stock paid in, . . . . .	4,800,000.00
Funded debt, per last Report, . . . . .	927,000.00
Funded debt, paid since last Report, . . . . .	135,000.00
Funded debt, increase of,* since last Report, . . . . .	
Total present amount of funded debt, . . . . .	*754,000.00
Floating debt, per last Report, . . . . .	
Floating debt, paid since last Report, . . . . .	
Floating debt, increase of, since last Report, . . . . .	
Total present amount of Floating debt, . . . . .	
Total present amount of Funded and Floating debt, . . . . .	
Average rate of interest, per annum, paid during the year, . . . . .	6 per cent.

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### COST OF ROAD AND EQUIPMENT.

Cost of road as follows, viz.:

In Connecticut, per last report, . . . . .	\$2,944,789.41
This year, . . . . .	3,408,354.22
In Massachusetts, last Report, . . . . .	265,027.66
This year, . . . . .	265,027.66
Middletown Branch, last Report, . . . . .	197,467.69
This year, . . . . .	197,467.69
For graduation, masonry and equipment, paid during the past year, . . . . .	213,736.24

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\* \$38,000 paid previously, but not reported.

New locomotives and cars are charged to the general expense of the road.	
For land per last Report,	.
For land, paid during the past year,	.
Total amount expended for land, land damages, and fences,	132,317.43
For locomotives, per last Report,	.
For locomotives, paid during the past year,	.
Total for locomotives,	300,000.00
For passenger and baggage cars, per last Report,	.
For passenger and baggage cars, paid during the past year,	.
Total amount for passenger, baggage, and freight cars,	500,000.00
For merchandise cars, per last Report,	.
For merchandise cars, paid during the past year,	.
Total amount expended for merchandise cars,	.
Total amount expended for iron bridges,	272,463.47
For superstructure, including iron paid during the past year,	200,000.00
For agencies and other expenses, per last Report,	.
For agencies and other expenses, paid during the past year,	.
Total amount expended for agencies and other expenses,	.
Total cost of road and equipments, Railway, including double track, branch tracks, depot grounds, &c.,	4,070,849.57

## CHARACTERISTICS OF ROAD.

Length of road,	62 miles.
Length of single main track,	.
Length of double main track,	62 miles.



Length of branches owned by the company, stating whether they have a single or double track, . . . .	*13 miles.
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	10 $\frac{7}{8}$ miles.
Weight of rail, per yard, in main road,	57 and 62 lbs.
Weight of rail, per yard, in branch roads,	57 and 62 lbs.
Specify the different weights per yard,	57 and 62 lbs.
Maximum grade, with its length, in main road, . . . . .	38 $\frac{28}{100}$ 2,600 feet.
Maximum grade, with its length, in branch roads, . . . . .	31 $\frac{68}{100}$ 1,500 feet.
Total rise and fall in main road, . . . .	721 $\frac{11}{10}$ feet.
Total rise and fall in branch roads,	130 feet.
Shortest radius of curvature, with length of curve, in main road, . . . . .	444 feet radius, 814 feet.
Shortest radius of curvature, with length of curve, in branch roads, . . . . .	513 feet long.
Total degrees of curvature, in main road,	1,774 $\frac{25}{100}$ feet.
Total degrees of curvature, in branch roads, . . . . .	478 $\frac{10}{100}$ feet.
Total length of straight line, in main road,	36 $\frac{94}{100}$ miles.
Total length of straight line in branches,	5 $\frac{7}{8}$ miles.
Aggregate length of wooden truss bridges	477 feet
Aggregate length of all other wooden bridges, . . . . .	1,172 feet.
Aggregate length of iron bridges,	1,524 feet.
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	75
Number of railways crossed at grade,	3
Remarks, . . . . .	
Way stations for express trains,	3
Way stations for accommodation trains,	14
Flag stations, . . . . .	4
Whole number of way stations, . . . . .	14
Whole number of flag stations, . . . . .	4

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\*Middletown Branch, single track, Hartford Branch, single track, New Britain Branch, single track.

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	350,261
Miles run by freight trains, . . . . .	247,694
Miles run by other trains, . . . . .	102,561
Total miles run, . . . . .	700,516
Number of passengers carried in the cars, . . . . .	1,100,000
Number of passengers carried one mile, . . . . .	31,387,920
Number of tons of merchandise carried in the cars, . . . . .	550,814
Number of tons of merchandise carried one mile, . . . . .	22,636,870
Number of passengers carried one mile, to and from other roads, . . . . .	16,721,659
Number of tons carried one mile, to and from other roads, . . . . .	
Rate of speed adopted for express passenger trains, including stops, . . . . .	33 miles.
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	33 miles.
Rate of speed adopted for accommodation trains, . . . . .	27 miles.
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	27 miles.
Average rate of speed adopted for freight trains, including stops and detentions, . . . . .	12 miles.
Estimated weight in tons of passenger cars, (not including passengers,) hauled one mile, . . . . .	
Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile, . . . . .	

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, wooden bridges, and renewals of iron, . . . . .	\$260,872.84
Repairs of wooden bridges, . . . . .	
For renewals of iron, including laying down, . . . . .	

For wages of switchmen, average	}	Total, \$40,668.00
per month, \$46.00, .		
For wages of gate-keeper, average		
per month, 45.00, .		
For wages of signal-men, average		
per month, 50.00, .		
For wages of watchmen, average		
per month, 47.00, .		
Number of men employed, .		1,119
For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,) .		
For repairs of fences, gates, houses, sig- nal-men, gate-keepers, switchmen, tool- houses, . . . . .		
Total for maintenance of way,		
Loss and damage of goods and baggage, gratuities, &c., . . . . .		
Damages for injuries to persons, .		
Damages to property, including damages by fire, . . . . .		
Damages for cattle killed on the road,		\$280.91

## MOTIVE POWER AND CARS.

For repairs of locomotives, . . . . .	\$92,256.72
For new locomotives to cover deprecia- tion, included in repairs, . . . . .	
For repairs on passenger cars, . . . . .	39,560.95
For new passenger cars to cover depre- ciation, included in repairs, . . . . .	
For repairs of merchandise, gravel, and other cars, . . . . .	74,733.27
For repairs of gravel and other N. Y. and B. Line cars, . . . . .	15,907.60
Total for maintenance of motive power and cars, . . . . .	
Number of engines, - . . . .	31
Number of passenger cars, . . . . .	33
Number of baggage cars, . . . . .	18
Number of merchandise cars, . . . . .	584



Number of gravel cars, . . . . .	9
Tools and machinery at repair shop, . . . . .	14,095.96

## MISCELLANEOUS.

For fuel used by engines during the year, viz: . . . . .	
Wood, . . . . .	\$8,898.00
Coal, . . . . .	80,821.89
For oil used by cars and engines, and stations, . . . . .	9,889.53
For waste and for other material for cleaning, . . . . .	4,630.93
For salaries, wages, and incidental ex- penses, chargeable to passenger de- partment,* . . . . .	}
For salaries, wages and incidental ex- penses, chargeable to freight depart- ment,* . . . . .	
For gratuities and damages, . . . . .	11,272.00
For taxes and insurance, . . . . .	201,223.65
For ferries, . . . . .	
For repairs of station buildings, acque- ducts, fixtures, furniture, . . . . .	64,370.48
For interest, . . . . .	36,886.07
For amount paid other companies, in tolls for passengers, and freight car- ried on their roads, specifying each company, . . . . .	
For amount paid other companies, for the use of their roads, specifying each company, . . . . .	
For salaries of president, treasurer, su- perintendent, law expenses, office ex- penses of the above officers, and all other expenses not included in any of the foregoing items,* . . . . .	
Total expenditure for working the road, 1,284,105.95	
List of accidents to operatives and em-	

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\* General Expense and Transportation Account.

ployees on the road, and the amount of damage, if any, paid to each case, naming each individual thus injured, .	
General expense and transportation ac- count, . . . . .	408,726.43

## INCOME DURING THE YEAR.

*For Passengers:—*

On main road including branches owned by Company, and to and from other roads, specifying what, . . . . .	999,752.05
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*For Freight:—*

On main road and branches owned by Company, and to and from connecting roads, . . . . .	848,716.76
U. S. Mails, . . . . .	22,045.99
Rents and Expresses, . . . . .	59,205.14
Total income, . . . . .	1,929,219.94
Net earnings, after deducting expenses, interest and taxes, . . . . .	645,613.99

## DIVIDENDS.

Total amount paid, . . . . .	556,743.50
Surplus not divided, . . . . .	
Surplus last year, . . . . .	
Total surplus, . . . . .	

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Road and bridges, . . . . .	
Buildings, . . . . .	
Engines and cars, . . . . .	

W. P. BURRALL, *President.*

HARTFORD COUNTY, SS. }  
HARTFORD, 31st January, 1871. }

Personally appeared W. P. Burrall, President, and made oath that the above report, signed by him, is true, according to his best knowledge and belief.      Before me,

URIAH CASE,  
*Justice of the Peace.*



## NORWICH AND WORCESTER RAILROAD.

*Return of the Norwich and Worcester Railroad, for ten months ending  
September 30th, 1870, to the General Railroad Commissioners.*

Capital Stock, . . . . .	\$2,825,000.00
Number of shares of capital stock issued, . . . . .	23,644
Increase of capital since last Report, . . . . .	
Capital paid in, per last Report, . . . . .	2,363,700.00
Capital paid in since last Report, . . . . .	700.00
Total amount of capital stock paid in, . . . . .	2,364,400.00
Funded debt, per last Report, . . . . .	754,000.00
Funded debt, paid since last Report, . . . . .	
Funded debt, increase of, since last re- port, . . . . .	22,000.00
Total present amount of funded debt, . . . . .	776,000.00
Floating debt, per last Report, . . . . .	49,919.63
Floating debt, paid since last Report, . . . . .	35,035.31
Floating debt, increase of, since last Re- port, . . . . .	
Total present amount of floating debt, . . . . .	14,884.32
Total present amount of funded and floating debt, . . . . .	790,884.32
Average rate of interest per annum paid during the year, . . . . .	5 $\frac{3}{4}$ per cent.
Maximum amount of debts during the year, . . . . .	839,088.12

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last Report, . . . . .	\$614,529.92
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For graduation and masonry, paid during the past year, . . . . .	
Total amount expended for graduation and masonry, . . . . .	\$614,529.92
For wooden bridges, per last Report, . . . . .	\$32,750.59
For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	32,750.59
Total amount expended for iron bridges (if any,)	
For superstructure, including iron, per last Report, . . . . .	357,181.48
For superstructure, including iron, paid during the past year, . . . . .	
Total amount expended for superstructure, including iron, . . . . .	357,181.48
For stations, buildings, and fixtures, per last Report, . . . . .	49,168.93
For stations, buildings, and fixtures, paid during the past year . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	49,168.93
For land, land damages, and fences, per last Report, . . . . .	142,591.71
For land, land damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land damages, and fences, . . . . .	142,591.71
For locomotives, per last Report, . . . . .	75,540.44
For locomotives, paid during the past year, . . . . .	
Total amount expended for locomotives, . . . . .	75,540.44
For passenger and baggage cars, per last Report, . . . . .	31,524.88
For passenger and baggage cars, paid during the past year, . . . . .	
Total amount expended for passenger and baggage cars, . . . . .	31,524.88
For merchandise cars, per last Report, . . . . .	42,646.25

For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchandise cars, . . . . .	\$42,646.25
For engineering, per last Report, . . . . .	\$69,499.50½
For engineering paid during the past year, . . . . .	
Total amount expended for engineering, . . . . .	69,499.50½
For agencies and other expenses, per last Report, . . . . .	1,198,260.50½
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	1,198,260.50½
<hr/>	
Total cost of road and equipment, . . . . .	\$2,613,694.21
Amount of assets or property held by the corporation in addition to the cost of the road, - - - - -	1,063,552.86

## CHARACTERISTICS OF ROAD.

Length of road, . . . . .	59 $\frac{4}{10}$ miles.
Length of single main track, . . . . .	59 $\frac{4}{10}$ miles.
Length of double main track, . . . . .	
Length of branches owned by the Company, stating whether they have a single or double track, . . . . .	7 miles, single.
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	12 miles, single.
Weight of rail, per yard, in main road, . . . . .	56 and 60 lbs.
Weight of rail, per yard, in branch roads (specify the different weights per yard,) . . . . .	56 and 60 lbs.
Maximum grade, with its length in main road, . . . . .	32 feet for 13,265 feet.
Maximum grade, with its length in branch roads, . . . . .	
Total rise and fall in main road, . . . . .	815½ feet.
Total rise and fall in branch roads, . . . . .	



Shortest radius of curvature, with length of curve in main road, . . . . .	500 ft. radius 486 ft. long.
Shortest radius of curvature, with length of curve, in branch roads, . . . . .	175 ft. radius 200 ft. long.
Total degrees of curvature in main road, . . . . .	424° 30'.
Total degrees of curvature in branch roads, . . . . .	
Total length of straight line in main road, . . . . .	33 miles.
Total length of straight line in branches, . . . . .	1 $\frac{6}{10}$ miles.
Aggregate length of wooden truss bridges, . . . . .	1309 feet.
Aggregate length of all other wooden bridges, . . . . .	528 feet.
Aggregate length of iron bridges, . . . . .	none.
Whole length of road unfenced on both sides, . . . . .	Fenced by abutters.
Number of public ways crossed at grade, . . . . .	74
Number of railroads crossed at grade, . . . . .	4, Western, P., H. & F., B. H. & E., 2 crossings.
Remarks, . . . . .	
Way stations for express trains, . . . . .	3
Way stations for accommodation trains, . . . . .	18
Flag stations, . . . . .	2
Whole number of way stations, . . . . .	18
Whole number of flag stations, . . . . .	2

## DOINGS DURING TEN MONTHS.

Miles run by passenger trains, . . . . .	138,527
Miles run by freight trains, . . . . .	191,613
Miles run by other trains, . . . . .	19,810
Total miles run, . . . . .	349,958
Number of passengers carried in the cars, . . . . .	304,393
Number of passengers carried one mile, . . . . .	5,905,914
Number of tons of merchandise carried in the cars, . . . . .	225,535
Number of tons of merchandise carried one mile, . . . . .	9,312,721
Number of passengers carried one mile to and from other roads, . . . . .	2,010,420

Number of tons carried one mile to and from other roads, . . . . .	2,698,458
Rate of speed adopted for express passenger trains, including stops, . . . . .	30 miles.
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	30 miles.
Rate of speed adopted for accommodation trains, . . . . .	20 miles.
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	30 miles.
Average rate of speed actually attained by special trains, including stops and detentions, . . . . .	none.
Average rate of speed adopted for freight trains, including stops, . . . . .	12 miles.
Estimated weight, in tons, of passenger cars (not including passengers) hauled one mile, . . . . .	7,129,231
Estimated weight, in tons, of merchandise cars (not including freight) hauled one mile, . . . . .	15,670,002

EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, exclusive of wooden bridges and renewals of iron, . . . . .	\$71,386.90
For repairs of wooden bridges, . . . . .	993.47
For wages of switchman, average per month, \$238.91, . . . . .	9,871.49
For wages of gate-keepers, average per month, \$17.00, . . . . .	
For wages of signal-men, average per month, \$212.15, . . . . .	
For wages of watchmen, average per month, \$329.50, . . . . .	
Number of men employed, exclusive of those engaged in construction, . . . . .	381

For removing ice and snow, (this item to include all labor, tools repairs, and extra steam power used,) .	\$277.08	
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool houses, .	106.45	
Total for maintenance of way, .		\$82,635.39

## MOTIVE POWER AND CARS.

For repairs of locomotives, .	\$23,859.90	
For new locomotives to cover depre- ciation, . . . . .		
For repairs of passenger cars, .	6,273.31	
For new passenger cars to cover de- preciation . . . . .		
For repairs of merchandise cars, .	23,430.90	
For new merchandise cars to cover depreciation, . . . . .	38,634.09	
For repairs of gravel and other cars, .	1,562.34	
Total for maintenance of motive power and cars, . . . . .		\$93,759.73
Number of engines, . . . . .		21
Number of passenger cars, . . . . .		20
Number of baggage cars, . . . . .		none.
Number of merchandise cars, . . . . .		642
Number of gravel cars. . . . .		none.

## MISCELLANEOUS.

For fuel used by engines during the year, viz.: . . . . .		
Wood, number of cords—cost of the same, .	\$24,106.66	
Coal, number of tons (reckoning 2,240 lbs. to the ton)—cost of the same, .	33,821.46	
For oil used by cars and engines, .	4,844.45	
For waste and other material for cleaning, . . . . .	1,109.87	
For salaries, wages, and incidental ex- penses, chargeable to passenger de- partment, . . . . .	31,847.85	



For salaries, wages, and incidental expenses, chargeable to freight department, . . . . .	74,207.87	
For gratuities and damages, . . . . .	2,328.27	
For taxes and insurance, . . . . .	37,621.56	
For ferries, . . . . .		
For repairs of station buildings, acqueducts, fixtures, furniture, . . . . .	1,516.35	
For renewals of iron, including laying down, . . . . .		
For new iron laid down, deducting the value of the old iron taken up, . . . . .		
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company, . . . . .		
For amount paid other companies, as rent for use of their roads, specifying each company, . . . . .		
For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items, . . . . .	33,757.96	
Total miscellaneous, . . . . .		\$246,162.30
Total expenditures for working the road, . . . . .		422,557.42
Total amount of interest paid during the year, . . . . .		43,087.32
Total expenses and interest, . . . . .		<hr/> \$465,644.74

## INCOME DURING THE YEAR.

*For Passengers:—*

On main road, including branches owned by company, . . . . .	\$138,295.45
To and from other roads, specifying what, Boston and Albany, W. & Nashua, Providence, Hartford, and Fishkill, and Boston, H., & Erie, . . . . .	70,257.34—\$208,552.79

*For Freight:—*

On main road and branches owned by company, . . . . .	\$208,073.71	
To and from other connecting roads, Boston & Albany, Wor. & Nashua, Providence, Hartford, and Fishkill, and Boston, H., and Erie, . . . . .	161,479.36—	369,553.07
United States Mails, . . . . .	1,000 00	
Rents, \$770.82, and other income, \$34,322.86 for expenses, . . . . .	35,093.68—	36,093.68
Total income, . . . . .		614,199.54
Net earnings, after deducting expenses and interest, . . . . .		148,554.80

## DIVIDENDS.

10 per cent. Total, . . . . .	\$244,693.57
Surplus not divided, . . . . .	\$241,539.45
Surplus last year, and other items, . . . . .	230,171.03
Total surplus, or balance, . . . . .	227,016.91

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ.:

Of roads and bridges, . . . . .	
Buildings, . . . . .	
Engines and cars, . . . . .	

## MORTGAGE DEBTS.

Amount of debts secured by mortgage of road and franchise, or any property of the Corporation, per last Report, . . . . .	\$609,000.00	
Mortgage debt paid since last Report, . . . . .		
Increase of mortgage-debt since last Report, or addition, . . . . .	142,000.00	
Present amount of mortgage-debts, . . . . .	751,000.00	
Number of mortgages on road and franchise, or any property of the Corporation, . . . . .		Five.

A. F. SMITH, President,	} <i>Directors.</i>
A. BREWSTER,	
G. L. PERKINS, Treasurer,	
P. ST. M. ANDREWS, Superintendent.	

STATE OF CONNCTICÛT, NEW LONDON COUNTY, ss. }  
December 6, 1870. }

Then personally appeared Alba F. Smith, Pres., A. Brewster, a Director, G. L. Perkins, Treasurer, and P. St. M. Andrews, Supt. Nor. & Wor. R. R., and severally made oath to the truth of the foregoing statement, by them subscribed, before me,

GEO. C. RIPLEY,  
*Justice of the Peace.*



## HARTFORD, PROVIDENCE, AND FISHKILL RAILROAD.

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*Return of the Trustees of the Hartford, Providence, and Fishkill  
Railroad, under the Act of 1853, from January 1st, 1870, to Janu-  
ary 1st, 1871.*

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Capital Stock, . . . . .	\$4,500,000.00
Increase of Capital, since last report,	
Capital paid in, per last report, . . . . .	
Capital paid in, since last report,	
Total amount of Capital Stock paid in, . . . . .	2,037,939.38
Funded debt, per last report, . . . . .	
Funded debt, paid since last report,	
Funded debt, increase of, since last report, . . . . .	
Total present amount of funded debt,	
Floating debt, per last report, . . . . .	
Floating debt, paid since last report,	
Floating debt, increase of, since last report, . . . . .	
Total present amount of floating debt,	
Total present amount of funded and floating debt, about . . . . .	2,255,500.00
Average rate of interest, per annum, paid during the year, . . . . .	7 per cent.
There is a sinking fund deposited with the Treasurers of the cities of Hart- ford and Providence, towards pro- viding for the payment of the Com- pany's bonds, amounting to \$981,- 000.00, and maturing in 1876, held by said cities. This fund, January 1st, 1871, amounted	
In Hartford, to . . . . .	141,870.09
In Providence, to . . . . .	109,500.00

## COST OF ROAD AND EQUIPMENTS.

For graduation and masonry, per last report,	.	.	.
For graduation and masonry, paid during the past year,	.	.	.
Total amount expended for graduation and masonry,	.	.	.
For wooden bridges, per last report,	.	.	.
For wooden bridges, paid during the past year,	.	.	.
Total amount expended for wooden bridges,	.	.	.
Total amount expended for iron bridges, (if any,)	.	.	.
For superstructure, including iron, per last report,	.	.	.
For superstructure, including iron, paid during the past year,	.	.	.
Total amount expended for superstructure, including iron,	.	.	.
For stations, buildings, and fixtures, per last report,	.	.	.
For stations, buildings, and fixtures, paid during the past years,	.	.	.
Total amount expended for stations, buildings, and fixtures,	.	.	.
For land, land-damages, and fences, per last report,	.	.	.
For land, land-damages, and fences, paid during the past year,	.	.	.
Total amount expended for land, land-damages, and fences,	.	.	.
For locomotives, per last report,	.	.	.
For locomotives, paid during the past year,	.	.	.
Total am't expended for locomotives,	.	.	.
For passenger and baggage cars, per last report,	.	.	.
For passenger and baggage cars, paid during the past year,	.	.	.
Total amount expended for passenger and baggage cars,	.	.	.

For merchandise cars, per last report,	
For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchan- dise cars, . . . . .	
For engineering, per last report,	
For engineering, paid during the past year, . . . . .	
Total amount expended for engineer- ing, . . . . .	
For agencies, and other expenses, per last report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	\$4,719,751.39
Equipment, January 1st, 1871,	\$530,915.00
Equipment, February 1st, 1858,	266,030.00
Increase of equipment,	264,885.00
Spent by trustees at stations,	4,204,866.39
At Dorrance street track, &c.,	250,000.00

## CHARACTERISTICS OF THE ROAD.

Length of road . . . . .	Connecticut,	96.04	
	Rhode Island,	26.32	
			122 $\frac{365}{1000}$ miles.
Length of single main track, . . . . .			117 $\frac{365}{1000}$ miles.
Length of main track, used with Hartford & New Ha- ven as double, . . . . .			5 miles.
Length of branches owned by the company, stating whether they have a single or double track, (Dor- rance street single track, Providence,) . . . . .			0 $\frac{811}{1000}$ miles.
*Aggregate length of sidings, and other tracks, ex- cepting main track and branches, . . . . .			16 $\frac{4724}{1000}$ miles.
Weight of rail, per yard, in main road, . . . . .			
Weight of rail, per yard, in branch roads, (Dorrance st.,)			72
Specify the different weights per yard,			52 $\frac{1}{2}$ , 56, 58, 60, 62

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\* Including 4,356 feet on Rockville R. R.



Maximum grade, with its length, in main road, 60 feet	
	[per mile for $3\frac{8.6}{100}$ miles]
Maximum grade, with its length, in branch roads,	
Total rise and fall in main road, . . . . .	3,315 $\frac{6.5}{100}$ feet
Total rise and fall in branch roads, . . . . .	
Shortest radius of curvature, with length of curve,	
in main road, . . . . .	604 feet for 4,990 feet.
Shortest radius of curvature, with length of curve,	
in branch roads, . . . . .	
Total degree of curvature, in main road, . . . . .	7,483 $\frac{6.7}{100}$ feet.
Total degree of curvature in branch roads, . . . . .	
Total length of straight line, in main road, . . . . .	66 $\frac{5.0}{100}$ miles
Total length of straight line in branches, . . . . .	
Aggregate length of wooden truss bridges, . . . . .	5,653 feet.
Aggregate length of all other wooden bridges, . . . . .	5,733 feet.
Aggregate length of iron bridges, . . . . .	
Whole length of road unfinished on both sides, -	
Number of public ways crossed at grade, . . . . .	137
Number of roads crossed at grade, 4, viz.,	$\left\{ \begin{array}{l} \text{N. \& W.} \\ \text{N. L. N.} \\ \text{H. \& N. H.} \\ \text{N. H. \& N.} \end{array} \right.$
Way stations for express trains, . . . . .	
Way stations for accomodation trains, . . . . .	47
Flag stations, . . . . .	23
Whole number of way stations, . . . . .	47
Whole number of flag stations, . . . . .	23

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	313,359
Miles run by freight trains, . . . . .	171,182
Miles run by other trains, . . . . .	60,130
Total miles run, . . . . .	544,772
Number of passengers carried in the cars, . . . . .	1,066,281
Number of passengers carried one mile, . . . . .	14,447,202
Number of tons of merchandise carried	
in the cars, . . . . .	226,481
Number of tons of merchandise carried	
one mile, . . . . .	5,051,366
Number of passengers carried one mile,	
to and from other roads, . . . . .	2,935,463
Number of tons carried one mile, to	
and from other roads, . . . . .	2,606,489

Rate of speed adopted for express passenger trains, including stops, .	
Average rate of speed actually attained by express passenger trains, including stoppages and detentions,	
Rate of speed adopted for accommodation trains, and mixed, . . .	22 and 15 miles per hour.
Rate of speed actually attained by accommodation and mixed trains, including stops and detentions, . . .	" "
Average rate of speed adopted for freight trains, including stops and detentions, . . .	10 to 15 miles per hour.
Estimated weight in tons of passenger cars, (not including passengers,) hauled one mile, . . .	13,078,584
Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile, . . .	15,255,872

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of (exclusive of wooden bridges,) and renewals of iron, including new, . . .	\$195,012.11	
Repairs of wooden bridges, . . .	15,774.64	
Tons of iron rails laid in 1870 in Conn.,		427
For wages of switchmen, average per month, \$47.00 . . .	}	
For wages of gate-keeper, average per month . . .		
For wages of signal-men, average per month, . . .		
For wages of watchmen, average per month, \$47.00, . . .		
Number of men employed, exclusive of those engaged in construction, . . .		625
For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam power used,) . . .		

For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool houses, . . . . .	\$9,783.09
Total for maintenance of way . . . . .	\$220,569.84
Loss and damage of goods and baggage, Damages for injuries to persons, . . . . .	
Damages to property, including damages by fire . . . . .	
Damages for cattle killed on road . . . . .	

## MOTIVE POWER AND CARS.

For repairs of locomotives and cars, in- cluding new, . . . . .	\$116,396.24
For new locomotives to cover deprecia- tion, . . . . .	
For repairs of passenger cars, . . . . .	
For new passenger cars, to cover depre- ciation, . . . . .	
For repairs on merchandise cars, . . . . .	
For new merchandise cars to cover de- preciation, . . . . .	
For repairs of gravel and other cars, . . . . .	
Total for maintenance of motive power and cars, . . . . .	
Number of engines, . . . . .	25
Number of passenger cars, . . . . .	30
Number of baggage cars, . . . . .	17
Number of merchandise cars, . . . . .	284
Number of gravel cars, including 60 coal cars, . . . . .	87

## MISCELLANEOUS.

For fuel used by engines during the year, viz :	
Wood, . . . . .	\$99,087.57
Coal, . . . . .	8,176.70
For oil used by cars and engines, . . . . .	9,319.73
For waste and other material for cleaning, . . . . .	2,584.43
For salaries and wages . . . . .	178,635.79
For gratuities and damages, rents, &c., . . . . .	30,683.16



For taxes and insurance, . . . . .	52,127.32
For printing and stationery, . . . . .	
For repairs of station buildings, acqueducts, fixtures, furniture, including new, . . . . .	35,483.48
For interest, . . . . .	14,296.97
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company, . . . . .	
For amount paid other companies, for the use of their roads, specifying each company: Rockville Railroad, included in rents, \$750.00 per month, . . . . .	
For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items, . . . . .	
Total expenditures for working the road, including new buildings and equipment, and including Rockville Railroad since Sept. 1st, 1868, . . . . .	\$767,361.23

## INCOME DURING THE YEAR.

*For Passengers:—*

On main road including branches owned by Company . . . . .	\$475,029.07
To and from other roads, specifying what, . . . . .	

*For Freight:—*

On main road, and branches owned by Company, . . . . .	\$374,164.64
To and from connecting roads, . . . . .	
U. S. Mails, . . . . .	12,750.00
Rents and Expresses, &c., . . . . .	26,813.27
Total income, including Rockville R. R., and So. Manchester Branch . . . . .	888,754.98
Net earnings, after deducting expenditures, . . . . .	121,393.75

## DIVIDENDS.

Surplus not divided,	.	.	.
Surplus last year,	.	.	.
Total surplus,	.	.	.

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Road, &c.	.	.	.	.
Buildings,	.	.	.	.
Engines and cars,	.	.	.	.

, SAMUEL NOTT, *Superintendent.*

HARTFORD, February 7th, 1871.

## NEW LONDON NORTHERN RAILROAD.

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*Return of the New London Northern Railroad under the Act of 1853.*

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Capital Stock,	}	\$858,500.00 1st class.
	}	145,000.00 2d class.
Increase of Capital, since last report,		
Capital paid in, per last report,	.	1,003,500.00
Capital paid in, since last report,	.	
Total amount of Capital Stock paid in,	.	1,003,500.00
Funded debt, per last report,	.	651,500.00
Funded debt, paid since last report,		
Funded debt, increase of, since last report,		
Total present amount of funded debt,	.	651,500.00
Floating debt, per last report,	.	37,500.00
Floating debt, paid since last report,		
Floating debt, increase of, since last re-		
port,	.	35,000.00
Total present amount of floating debt,	.	72,500.00
Total present amount of funded and float-		
ing debt,	.	724,000.00
Average rate of interest, per annum, paid		
during the year,	.	7 per cent.

### COST OF ROAD AND EQUIPMENTS.

For graduation and masonry, per last	
report,	.
For graduation and masonry, paid dur-	
ing the past year,	.



Total amount expended for graduation and masonry, . . . . .	
For wooden bridges, per last report,	
For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	
Total amount expended for iron bridges, (if any,) . . . . .	
For superstructure, including iron, per last report, . . . . .	
For superstructure, including iron, paid during the past year,	
Total amount expended for superstruc- ture, including iron, . . . . .	
For stations, buildings, and fixtures, per last report, . . . . .	
For stations, buildings, and fixtures, paid during the past year, . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	
For land, land-damages, and fences, per last report, . . . . .	
For land, land-damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land-damages, and fences, . . . . .	
For locomotives, per last report,	
For locomotives, paid during the past year, . . . . .	\$13,500.00
Total amount expended for locomo- tives, . . . . .	
For passenger and baggage cars, per last report, . . . . .	
For passenger and baggage cars, paid during the past year, . . . . .	9,200.00
Total amount expended for passenger and baggage cars, . . . . .	
For merchandise cars, per last re- port, . . . . .	

For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchan- dise cars, . . . . .	
For engineering, per last report,	
For engineering, paid during the past year, . . . . .	
Total amount expended for engineer- ing, . . . . .	
For agencies and other expenses, per last report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	\$1,530,330.78

## CHARACTERISTICS OF ROAD.

Length of road, . . . . .	100 miles.
Length of single main track, . . . . .	100 miles.
Length of double main track,	
Length of branches owned by the compa- ny, stating whether they have a single or double track, . . . . .	none.
Aggregate length of sidings, and other tracks, excepting main track and branches,	
Weight of rail, per yard, in main road,	51 to 57 pounds per yard.
Weight of rail, per yard, in branch roads,	
Specify the different weights per yard,	
Maximum grade, with its length, in main road, . . . . .	66 feet for 2,000 feet.
Maximum grade, with its length in branch roads,	
Total rise and fall in main road, . . . . .	1,850 feet.
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road,	570 feet for 500 feet.
Shortest radius of curvature, with length of curve in branch roads,	
Total degrees of curvature, in main road,	

Total degrees of curvature, in branch roads, . . . . .	
Total length of straight line in main road,	62 miles.
Total length of straight line in branches,	
Aggregate length of wooden truss bridges, . . . . .	3,568 feet.
Aggregate length of all other wooden bridges, . . . . .	
Aggregate length of iron bridges,	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	82
Number of railroads crossed at grade,	2
Remarks, . . . . .	
Way stations for express trains,	
Way stations for accommodation trains,	17
Flag stations, . . . . .	19
Whole number of way stations, . . . . .	17
Whole number of flag stations, . . . . .	19

## \* DOINGS DURING THE YEAR.

Miles run by passenger trains, (N. & W., 8,095,) . . . . .	229,224
Miles run by freight trains, (N. & W., 24,687,) . . . . .	121,639
Miles run by other trains, (N. & W.,) . . . . .	7,872
Total miles run, (N. & W., 32,782,) . . . . .	358,735
Number of passengers carried in the cars, (N. & W., 49,690,) . . . . .	422,035
Number of passengers carried one mile, (N. & W., 645,970,) . . . . .	6,380,735
Number of tons of merchandise carried in the cars, N. & W., 66,062,) . . . . .	209,395
Number of tons of merchandise carried one mile, (N. & W., 858,806,) . . . . .	7,088,540
Number of passengers carried one mile, to and from other roads, . . . . .	no account.
Number of tons carried one mile, to and from other roads, . . . . .	no account.
Rate of speed adopted for express passenger trains, including stops, . . . . .	

\* Including Ware River Railroad.



Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	
Rate of speed adopted for accommodation trains, . . . . .	
Rate of speed actually attained by ac- commodation trains, including stops and detentions, . . . . .	22 miles per hour.
Average rate of speed adopted for freight trains, including stops and detentions, . . . . .	9 miles per hour.
Estimated weight in tons, of passenger cars, (not including passengers,) hailed one mile, . . . . .	
Estimated weight in tons of merchan- dise cars, (not including freight,) hailed one mile, . . . . .	

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, exclusive of wooden bridges, and renewals of iron, . . . . .	88,744.88	
Repairs of wooden bridges, . . . . .	8,560.44	
For renewals of iron including laying down, (included in repairs of road,) . . . . .		
For wages of switchmen, average per month, . . . . . \$40	7,896.83	
For wages of gate-keeper, average per month, . . . . .		
For wages of signal-men, average per month, . . . . . \$40		
For wages of watchmen, average per month, . . . . . \$40		
Number of men employed, exclusive of those engaged in construction, . . . . .		300
For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,) . . . . .	567.94	
For repairs of fences, gates, houses for signal-men, gate-keepers, switch- men, and tool houses, . . . . .	5,126.91	

Total for maintenance of way, including	
Ware R. R. . . . .	110,897.00
Loss and damage of goods and baggage,*	
Damages for injuries to persons,*	
Damages to property, including damages by fire,*	
Damages for cattle killed on road,*	

## MOTIVE POWER AND CARS.

For repairs of locomotives, . . . . .	\$19,256.45	
For new locomotives to cover depreciation, . . . . .		
For repairs on passenger cars, . . . . .	12,594.64	
For new passenger cars to cover depreciation, . . . . .		
For repairs on merchandise cars, . . . . .	19,063.45	
For new merchandise cars to cover depreciation, . . . . .		
For repairs of gravel and other cars, . . . . .	42.90	
Total for maintenance of motive power and cars, including Ware R. R. . . . .		48,957.44
Number of engines, . . . . .		15
Number of passenger cars, . . . . .		15
Number of baggage cars, . . . . .		8
Number of merchandise cars, . . . . .		219
Number of gravel cars (dump coal cars,) . . . . .		90

## MISCELLANEOUS.

For fuel used by engines during the year, viz :		
Wood, . . . . .	} \$47,535.35	
Coal, . . . . .		
For oil used by cars and engines, . . . . .		4,990.40
For waste and other material for cleaning, . . . . .		1,563.52
For salaries, wages, and incidental expenses, chargeable to passenger department, . . . . .	29,490.24	
For salaries, wages, and incidental expenses, chargeable to freight department, . . . . .	40,349.56	

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\* Included in Gratuities and Damages.

For gratuities and damages, . . . .	3,257.30	
For taxes and insurance, . . . .	28,652.05	
Machine shop and tools, . . . .	3,807.17	
For repairs of station buildings, acqueducts, fixtures, furniture, . . . .	10,737.20	
For interest, . . . .	48,779.97	
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company,		
For amount paid other companies, for the use of their roads, specifying each company, Ware R. R. R. Co., Mass.,	4,314.49	
For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items, . . . .	13,400.15	
Total expenditures for working the road, including Ware R. R. R., . . . .		396,731.93

## INCOME DURING THE YEAR.

*For Passengers :—*

On main road including branches owned by Company, Ware R. R. R., . . . .	205,520.44
To and from other roads, specifying what,	

*For Freight :—*

On main road and branches owned by Company, Ware R. R. R., . . . .	240,042.54	
To and from connecting roads, . . . .		
U. S. Mails, and Expresses, . . . .	16,706.36	
Rents, . . . .	7,426.02	
Total income, . . . .		469,695.36
Net earnings, after deducting expenses,		72,963.43

## DIVIDENDS.

8 per cent. total, . . . .	\$68,680
Surplus not divided, . . . .	
Surplus last year, . . . .	
Total surplus, . . . .	



## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Roads and bridges, . . .  
Buildings, . . .  
Engines and cars, . . .

A. N. RAMSDELL, President,  
BENJAMIN STARK,  
WILLIAM H. BARNES. } *Directors.*

Subscribed and sworn to, at New London, this 22d day of February, 1871. Before me,

ROBERT COIT, JR.,  
*Justice of the Peace.*

## HOUSATONIC RAILROAD.

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*Return of the Housatonic Railroad, under the Act of 1853.*

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Capital Stock,	\$2,000,000.00
Increase of Capital, since last report,	
Capital paid in, per last report,	2,000,000.00
Capital paid in, since last report,	
Total Amount of Capital Stock paid in,	2,000,000.00
Funded debt, per last Report,	291,000.00
Funded debt, paid since last Report,	
Funded debt, increase of, since last Report,	50,000.00
Total present amount of funded debt,	341,000.00
Floating debt, per last Report,	106,055.68
Floating debt, paid since last Report,	
Floating debt, increase of, since last Report,	6,878.23
Total present amount of floating debt,	112,933.91
Total present amount of funded and floating debt,	453,933.91
Average rate of interest, per annum, paid during the year,	7 per cent.

### COST OF ROAD AND EQUIPMENTS.

For graduation and Masonry, per last Report,	
For graduation and Masonry, paid during the past year,	
Total amount expended for graduation and masonry,	
For wooden bridges, per last report,	
For wooden bridges, paid during the past year,	

Total amount expended for wooden  
 bridges, . . . .  
 Total amount expended for iron  
 bridges, if any, . . . .  
 For superstructure, including iron,  
 per last Report, . . . .  
 For superstructure, including iron,  
 paid during the past year, . . . .  
 Total amount expended for super-  
 structure, including iron, . . . .  
 For stations, buildings, and fixtures,  
 per last Report, . . . .  
 For stations, buildings, and fixtures,  
 paid during the past year, . . . .  
 Total amount expended for stations,  
 buildings, and fixtures, . . . .  
 For land, land-damages, and fences  
 per last Report, . . . .  
 For land, land-damages, and fences,  
 paid during the past year, . . . .  
 Total amount expended for land,  
 land-damages, and fences, . . . .  
 For locomotives per last Report, . . . .  
 For locomotives paid during the  
 past year, . . . .  
 Total amount expended for locomo-  
 tives, . . . .  
 For passenger and baggage cars,  
 per last Report, . . . .  
 For passenger and baggage cars,  
 paid during the past year, . . . .  
 Total amount expended for passen-  
 ger and baggage cars, . . . .  
 For merchandise cars, per last Re-  
 port, . . . .  
 For merchandise cars, paid during  
 the past year, . . . .  
 Total amount expended for mer-  
 chandise cars, . . . .  
 For engineering, per last Report, . . . .



For engineering, paid during the past year, . . . . .	
Total amount expended for engineering, . . . . .	
For agencies and other expenses, per last Report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	\$2,105.558.52

## CHARACTERISTICS OF ROAD.

Length of road, (74 miles in Connecticut, and 50 in Massachusetts,) . . . . .	124 miles.
Length of single main track, . . . . .	
Length of double main track, . . . . .	
Length of branches owned by the company, stating whether they have a single or double track, . . . . .	
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	
Weight of rail, per yard, in main road, . . . . .	60 pounds.
Weight of rail, per yard, in branch roads, . . . . .	
Specify the different weights per yard, . . . . .	
Maximum grade, with its length, in main road, . . . . .	
Maximum grade, with its length in branch roads, . . . . .	
Total rise and fall in main road, . . . . .	
Total rise and fall in branch roads, . . . . .	
Shortest radius of curvature, with length of curve, in main road, . . . . .	
Shortest radius of curvature, with length of curve, in branch roads, . . . . .	
Total degrees of curvature, in main rd. . . . .	
Total degrees of curvature, in branch roads, . . . . .	
Total length of straight line, main rd. . . . .	

Total length of straight line in branches,	
Aggregate length of wooden truss bridges,	
Aggregate length of all other wooden bridges, . . . . .	
Aggregate length of iron bridges, .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	81
Number of railroads crossed at grade,	1
Remarks, . . . . .	
Way stations for express trains, .	
Way stations for accomodation trains,	29
Flag stations, . . . . .	7
Whole number of way stations, . .	29
Whole number of flag stations, . .	7

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . .	161,922
Miles run by freight trains, . . . .	142,034
Miles run by other trains, . . . .	10,460
Total miles run, . . . . .	314,416
Number of passengers carried in the cars,	228,693
Number of passengers carried one mile,	4,323,599
Number of tons of merchandise carried in the cars, . . . . .	200,872
Number of tons of merchandise carried one mile, . . . . .	13,458,424
Number of passengers carried one mile, to and from other roads, . . . .	1,979,337
Number of tons carried one mile, to and from other roads, . . . .	
Rate of speed adopted for express passenger trains, including stops, .	
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . .	
Rate of speed adopted for accomodation trains, . . . . .	25 miles per hour.
Rate of speed actually attained by accomodation trains, including stops and detentions, . . . . .	20 " " "

Average rate of speed adopted for freight trains, including stops and detentions,	9 miles per hour.
Estimated weight in tons of passenger cars, (not including passengers,) hauled one mile, . . . . .	
Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile, . . . . .	

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, (exclusive of wooden bridges,) and renewals of iron, . . . . .	
Repairs of wooden bridges, . . . . .	\$6,657.00
For renewals of iron, and laying down, . . . . .	153,118.33
For wages of switchmen, average per month, . . . . .	87,283.74
For wages of gate-keeper, average per month, . . . . .	
For wages of signal-men, average per month, . . . . .	
For wages of watchmen, average per month, . . . . .	
Number of men employed, exclusive of those engaged in construction, 285 . . . . .	
For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,) . . . . .	240,402.07
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool-houses, . . . . .	
Total for maintenance of way, . . . . .	
Loss and damage of goods and baggage, . . . . .	5,946.25
Damages for injuries to persons, . . . . .	
Damages to property, including damages by fire, . . . . .	
Damages for cattle killed on road, . . . . .	

## MOTIVE POWER AND CARS.

For repairs of locomotives, . . . . .	\$17,125.33
For new locomotives to cover depreciation, . . . . .	



For repairs of passenger cars, . . . . .		
For new passenger cars to cover depreciation, . . . . .	\$11,116.00	
For repairs of merchandise cars, . . . . .		
For new merchandise cars to cover depreciation, . . . . .	72,864.69	
For repairs of gravel, and other cars, . . . . .		
Total for maintenance of motive power and cars, . . . . .	101,106.02	-
Number of engines, . . . . .		14
Number of passenger cars, . . . . .		15
Number of baggage cars, . . . . .		6
Number of merchandise cars, . . . . .		285
Number of gravel cars, . . . . .		

## MISCELLANEOUS.

## List of accidents to persons :

## List of accidents to cattle and the amount paid for each, . . . . .

19 cows, . . . . .	}	839.92
5 oxen, . . . . .		
2 calves, . . . . .		
6 horses, . . . . .		

## For fuel used by engines during the year, viz :

Wood, . . . . .	\$22,335.73
Coal, . . . . .	28,586.86
For oil used by cars and engines, . . . . .	4,239.95
For waste and other material for cleaning, . . . . .	897.28
For salaries, wages, and incidental expenses, chargeable to passenger department . . . . .	37,208.26
For salaries, wages and incidental expenses, chargeable to freight department, . . . . .	72,536.56
For gratuities and damages, . . . . .	
For taxes and insurance, . . . . .	17,726.04
For ferries, . . . . .	
For repairs of station buildings, aqueducts, fixtures, furniture, . . . . .	30,642.46

For interest, . . . . .	\$21,367.94
For amount paid other companies, in tolls for passengers and freight car- ried on their roads, specifying each company, . . . . .	
For amount paid other companies, for the use of their roads, specifying each company, . . . . .	74,100.66*
For salaries of president, treasurer, su- perintendent, law expenses, office ex- penses of the above officers, and all other expenses not included in any of the foregoing items, . . . . .	
Total expenditures for working the road,	605,070.60†

## INCOME DURING THE YEAR.

*For Passengers:—*

On main road including branches owned by Company . . . . .	} \$208,304.10
To and from other roads, specifying what,	

*For Freight:—*

On main road, and branches owned by Company, . . . . .	\$454,610.70
From other sources, . . . . .	76,929.23
U. S. Mails, . . . . .	10,927.00
Rents, . . . . .	1,326.52
Total income, . . . . .	752,097.55
Net earnings, after deducting expenses,	147,024.95

## DIVIDENDS.

12 per cent. total on preferred capital stock,	141,600.00
Surplus not divided, . . . . .	44,508.11
Surplus last year, . . . . .	153,257.43
Total surplus, . . . . .	44,508.11

\* Stockbridge and Pittsfield road, \$31,409.00; Berkshire road, \$42,000.00;  
West Stockbridge road, \$691.66—\$74,100.66.

† This includes the taxes, interest, and rents of other roads.

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Roads and bridges,	.	.	.	}	none.
Buildings,	.	.	.		
Engines and cars,	.	.	.		

DAVID LEAVITT, *President.*

FAIRFIELD COUNTY, ss.	}
BRIDGEPORT, Ct., Feb. 11, 1871.	

Then personally appeared the above named David Leavitt, President, and affirmed that the foregoing declaration by him subscribed, is true, to the best of his knowledge and belief. Before me.

C. K. AVERILL,  
*Notary Public.*



## NAUGATUCK RAILROAD.

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*Return of the Naugatuck Railroad, under Act of 1853, Dec. 31st,  
1870.*

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Capital Stock, . . . . .	\$2,000,000.00
Increase of Capital since last Report, . . . . .	25,500.00
Capital paid in, per last Report, . . . . .	1,838,900.00
Capital paid in, since last Report, . . . . .	25,500.00
Total amount of Capital Stock paid in, . . . . .	1,864,400.00
Funded debt, per last Report, . . . . .	146,000.00
Funded debt, paid since last Report, . . . . .	25,000.00
Funded debt, increase of, since last Report, . . . . .	
Total present amount of funded debt, . . . . .	120,500.00
Floating debt, per last Report, . . . . .	
Floating debt, paid since last Report, . . . . .	
Floating debt, increase of, since last Report, . . . . .	50,000.00
Total present amount of Floating debt, . . . . .	50,000.00
Total present amount of Funded and Floating debt, . . . . .	170,500.00
Average rate of interest, per annum, paid during the year, . . . . .	7 per cent.

### COST OF ROAD AND EQUIPMENT.

For cost of road and equipment, per last Report, . . . . .	\$2,041,443.77
For graduation and masonry paid during the past year, . . . . .	

Total amount expended for graduation and masonry,	.	.	.
For wooden bridges, per last Report,			
For wooden bridges, paid during the past year,	.	.	.
Total amount expended for wooden bridges,	.	.	.
Total amount expended for iron bridges, (if any,)	.	.	.
For superstructure, including iron, per last Report,	.	.	.
For superstructure, including iron, paid during the past year,	.	.	.
Total amount expended for superstructure, including iron,	.	.	.
For stations, buildings, and fixtures per last Report,	.	.	.
For stations, buildings, and fixtures paid during the past year,	.	.	.
Total amount expended for stations, buildings, and fixtures,	.	.	.
For land, land damages, and fences, per last Report,	.	.	.
For land, land damages, and fences, paid during the past year,	.	.	.
Total amount expended for land, land damages, and fences,	.	.	.
For locomotives, per last Report,	.	.	.
For locomotives, paid during the past year,	.	.	.
Total amount expended for locomotives,			
For passenger and baggage cars, per last Report,	.	.	.
For passenger and baggage cars, paid during the past year,	.	.	.
Total amount expended for passenger and baggage cars,	.	.	.
For merchandise cars, per last Report,	.	.	.
For merchandise cars, paid during the past year,	.	.	.

Total amount expended for merchandise cars, . . . . .	
For engineering, per last Report, . . . . .	
For engineering paid during the past year, . . . . .	
Total amount expended for engineering, For agencies and other expenses, per last Report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	\$8.00
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments, . . . . .	\$2,041,451.77

## CHARACTERISTICS OF ROAD.

Length of road, . . . . .	57 miles.
Length of single main track, . . . . .	57 miles.
Length of double main track, . . . . .	
Length of branches leased by the company, stating whether they have a single or double track, . . . . .	4½ miles.
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	23,150 feet.
Weight of rail, per yard, in main road, . . . . .	52, 57 and 58 lbs.
Weight of rail, per yard, in branch roads, . . . . .	56 lbs.
Specify the different weights per yard, . . . . .	
Maximum grade, with its length, in main road, . . . . .	60 feet, 2½ miles.
Maximum grade, with its length, in branch roads, . . . . .	
Total rise and fall in main road, . . . . .	810 feet rise.
Total rise and fall in branch roads, . . . . .	
Shortest radius of curvature, with length of curve, in main road, . . . . .	
Shortest radius of curvature, with length of curve, in branch roads, . . . . .	
Total degrees of curvature, in main road, . . . . .	
Total degrees of curvature, in branch roads, . . . . .	

Total length of straight line, in main road,	14 miles.
Total length of straight line in branches,	
Aggregate length of wooden truss bridges	1,109 feet.
Aggregate length of all other wooden bridges, . . . . .	2,200 feet.
Aggregate length of iron bridges,	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	52
Number of railroads crossed at grade,	
Remarks, . . . . .	
Way stations for express trains,	
Way stations for accommodation trains, including branch, . . . . .	19
Flag stations, . . . . .	4
Whole number of way stations, . . . . .	
Whole number of flag stations, . . . . .	

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	84,854
Miles run by freight trains, . . . . .	121,315
Miles run by other trains, and switching,	28,312
Total miles run, . . . . .	234,481
Number of passengers carried in the cars, . . . . .	331,885
Number of passengers carried one mile,	
Number of tons of merchandise carried in the cars, . . . . .	176,200
Number of tons of merchandise carried one mile, . . . . .	
Number of passengers carried one mile to and from other roads, . . . . .	
Number of tons carried one mile to and from other roads, . . . . .	
Rate of speed adopted for express pas- senger trains, including stops, . . . . .	
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	
Rate of speed adopted for accommodation trains, . . . . .	20 miles per hour.



Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	18 miles per hour.
Average rate of speed adopted for freight trains, including stops and detentions, . . . . .	9 miles per hour.
Estimated weight, in tons, of passenger cars (not including passengers) hauled one mile, . . . . .	
Estimated weight, in tons, of merchandise cars (not including freight) hauled one mile, . . . . .	

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, exclusive of wooden bridges and renewals of iron, . . . . .	\$119,619.05
For repairs of bridges, . . . . .	7,654.59
For renewals of iron, including laying down, . . . . .	
For wages of switchman, average per month, . . . . .	
For wages of gate-keepers, average per month, . . . . .	
For wages of signal-men, average per month, . . . . .	
For wages of watchmen, average per month, . . . . .	
Number of men employed, exclusive of those engaged in construction, . . . . .	
For removing ice and snow, (this item to include all labor, tools repairs, and extra steam power used,) . . . . .	
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, and tool houses, . . . . .	
Total for maintenance of way, . . . . .	
Loss and damage to goods and baggage, . . . . .	
Damages for injuries to persons, . . . . .	

Damages to property, including  
damages by fire, . . . .  
Damages for cattle killed on road,

## MOTIVE POWER AND CARS.

For repairs of locomotives, . . . .	\$21,769.91	
For new locomotives to cover depreciation, . . . .		
For repairs of passenger cars, . . . .	16,756.81	
For new passenger cars to cover depreciation . . . .		
For repairs of merchandise cars, . . . .	34,611.23	
For new merchandise cars to cover depreciation, . . . .		
For repairs of gravel and other cars,		
Total for maintenance of motive power and cars, . . . .		
Number of engines, . . . .		3
Number of passenger cars, . . . .		12
Number of baggage cars, . . . .		4
Number of merchandise cars, . . . .		250
Number of gravel cars, . . . .		

## MISCELLANEOUS.

For fuel used by engines during the year, viz.: . . . .	
Wood, . . . .	\$1,860.54
Coal, . . . .	23,726.51
For oil used by cars and engines, . . . .	2,972.37
For waste and other material for cleaning, . . . .	1,829.15
For salaries, wages, and incidental expenses, chargeable to passenger department, . . . .	21,933.26
For salaries, wages, and incidental expenses, chargeable to freight department, . . . .	73,225.56
For gratuities and damages, . . . .	1,381.14

For taxes and insurance, . . . . .	\$36,502.69	
For ferries, . . . . .		
For repairs of station buildings, ac queducts, fixtures, furniture, . . . . .	15,809.50	
For interest, . . . . .	9,135.00	
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company,		
For amount paid other companies, for the use of their roads, specifying each company, . . . . .		
For salaries of president, treasurer, su- perintendent, law expenses, office ex- penses of the above officers, and all other expenses not included in any of the foregoing items, . . . . .	30,209.44	
Total expenditures for working the road,		418,996.85
List of accidents to operatives and em- ployees on the road, and the amount of damage, if any, paid to each case, naming each individual thus injured.		

## INCOME DURING THE YEAR.

*For Passengers:—*

On main road, including branches owned by company, . . . . .	\$211,511.65
To and from other roads, specifying what,	

*For Freight:—*

On main road and branches owned by company, . . . . .	\$385,177.18	
To and from connecting roads, . . . . .		
United States Mails, . . . . .	4,650.01	
Rents and other sources, . . . . .	14,223.57	
Total income, . . . . .		615,562.41
Net earnings, after deducting expenses,		196,565.56

## DIVIDENDS.

15 per cent. Total, . . . . .	\$277,385.00
Surplus not divided, . . . . .	
Surplus last year, . . . . .	257,551.29
Total surplus, . . . . .	176,731.85

ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Roads and bridges,	.	.	.
Buildings, .	.	.	.
Engines and cars,	.	.	.

E. F. BISHOP,  
*President.*

FAIRFIELD CO., ss., Bridgeport, February 7, 1871.

Personally appeared E. F. Bishop, President of the Naugatuck R. R. Co., and made oath that the foregoing return by him subscribed is true, according to his best knowledge and belief.

H. NICHOLS, *Notary Public.*



# NEW YORK, PROVIDENCE, AND BOSTON RAILROAD.

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*Return of the New York, Providence, and Boston Railroad, under  
the Act of 1853, January 1st, 1870, to January 1st, 1871, in con-  
formity to Annual Report of August 31st, 1870.*

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Capital Stock, . . . . .	\$2,000,000.00
Increase of Capital, since last report,	
Capital paid in, per last report, .	
Capital paid in, since last report,	
Total amount of Capital Stock paid in,	1,887,348.00
Funded debt, per last report, .	983,000.00
Funded debt, paid since last report,	
Funded debt, increase of, since last report, . . . . .	42,000.00
Total present amount of funded debt,	1,025,000.00
Floating debt, per last report, .	
Floating debt, paid since last report,	
Floating debt, increase of, since last report, . . . . .	
Total present amount of floating debt,	
Total present amount of funded and floating debt, . . . . .	
Average rate of interest, per annum, paid during the year, . . . . .	

## COST OF ROAD AND EQUIPMENTS.

For graduation and masonry, per last report, . . . . .	
For graduation and masonry, paid during the past year, . . . . .	
Total amount expended for graduation and masonry, . . . . .	
For wooden bridges, per last report,	

For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	
Total amount expended for iron bridg- es, (if any,) . . . . .	
For superstructure, including iron, per last report, . . . . .	
For superstructure, including iron, paid during the past year, . . . . .	
Total amount expended for super- structure, including iron, . . . . .	
For stations, buildings, and fixtures, per last report, . . . . .	
For stations, buildings, and fixtures, paid during the past year, . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	
For land, land-damages, and fences, per last report, . . . . .	
For land, land-damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land- damages, and fences, . . . . .	
For locomotives, per last report, . . . . .	
For locomotives, paid during the past year, . . . . .	
Total am't expended for locomotives,	
For passenger and baggage cars, per last report, . . . . .	
For passenger and baggage cars, paid during the past year, . . . . .	
For merchandise cars, paid during the past year, . . . . .	
Total amount expended for new cars, . . . . .	\$7,979.27
For engineering, per last report,	
For engineering, paid during the past year, . . . . .	
Total amount expended for engineer- ing, . . . . .	

For agencies, and other expenses, per last report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	\$2,568,000.00

## CHARACTERISTICS OF THE ROAD.

Length of road, . . . . .	62 miles in all, 17 in Connecticut.
Length of single main track, . . . . .	
Length of double main track, . . . . .	
Length of branches owned by the company, stating whether they have a single or double track,	
Aggregate length of sidings, and other tracks, ex- cepting main track and branches, . . . . .	about 5 miles.
Weight of rail, per yard, in main road, . . . . .	56 to 64 pounds.
Weight of rail, per yard, in branch roads,	
Specify the different weights per yard, . . . . .	
Maximum grade, with its length, in main road, . . . . .	38 feet.
Maximum grade, with its length, in branch roads,	
Total rise and fall in main road, . . . . .	156 $\frac{63}{100}$ feet.
Total rise and fall in branch roads, . . . . .	
Shortest radius of curvature, with length of curve, in main road, . . . . .	1,000 feet.
Shortest radius of curvature, with length of curve, in branch roads, . . . . .	
Total degree of curvature, in main road, . . . . .	
Total degree of curvature in branch roads, . . . . .	
Total length of straight line, in main road, . . . . .	
Total length of straight line in branches, . . . . .	
Aggregate length of wooden truss bridges, . . . . .	2,007 feet.
Aggregate length of all other wooden bridges, . . . . .	2,866 feet.
Aggregate length of iron bridges, . . . . .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade, . . . . .	
Number of railroads crossed at grade, . . . . .	
Remarks, . . . . .	
Way stations for express trains, . . . . .	5
Way stations for accommodation trains, . . . . .	17
Flag stations, . . . . .	3

Whole number of way stations, . . . . .	20
Whole number of flag stations, . . . . .	3

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	
Miles run by freight trains, . . . . .	
Miles run by other trains, . . . . .	
Total miles run, . . . . .	338,959
Number of passengers carried in the cars, . . . . .	532,049
Number of passengers carried one mile, . . . . .	
Number of tons of merchandise carried in the cars, . . . . .	
Number of tons of merchandise carried one mile, . . . . .	
Number of passengers carried one mile, to and from other roads, . . . . .	
Number of tons carried one mile, to and from other roads, . . . . .	
Rate of speed adopted for express passenger trains, including stops, . . . . .	30 miles per hour.
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	
Rate of speed adopted for accommodation trains, . . . . .	25 miles per hour.
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	
Average rate of speed adopted for freight trains, including stops and detentions, . . . . .	15 miles per hour.
Estimated weight in tons, of passenger cars, (not including passengers,) hauled one mile, . . . . .	
Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile, . . . . .	

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, and renewals of iron, . . . . .	\$114,371.29
Repairs of wooden bridges, . . . . .	13,999.38



For renewals of iron including laying down, . . . . .	
For wages of switchmen, average per month, . . . . .	
For wages of gate-keeper, average per month, . . . . .	
For wages of signal-men, average per month, . . . . .	
For wages of watchmen, average per month, . . . . .	
Number of men employed, exclusive of those engaged in construction,	420
For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,) . . . . .	
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, and tool houses, . . . . .	
Total for maintenance, . . . . .	\$128,370.67
Loss and damage of goods and baggage, . . . . .	
Damages for injuries to persons, . . . . .	
Damages to property, including damages by fire, . . . . .	
Damages for cattle killed on road, . . . . .	
Gas Works, . . . . .	

## MOTIVE POWER AND CARS.

For repairs of locomotives, . . . . .	\$25,164.49	
For new locomotives, . . . . .	13,000.00	
For repairs on cars, . . . . .		
For new passenger cars to cover depreciation, . . . . .	30,039.29	
For repairs of merchandise cars, . . . . .		
For new cars, . . . . .	7,979.27	
For repairs of gravel and other cars, . . . . .		
Total for maintenance of motive power and cars, . . . . .	76,183.38	
Number of engines, . . . . .		17
Number of passenger cars, . . . . .		19
Number of baggage cars, . . . . .		7
Number of merchandise cars, . . . . .		131
Number of gravel cars, . . . . .		10

Also 64-234 of 4 pass. cars, also 61-108  
 of 1 pass. car, also 50-94 of 5 pass.  
 cars, also 64-234 of 2 baggage cars,  
 and 64-158 of 2 baggage cars, .

## MISCELLANEOUS.

For fuel used by engines during the year, mostly coal, viz: . . . . .	\$60,993.16	
Wood, . . . . .		
Coal, . . . . .		
For oil, . . . . .	7,966.81	
For waste and other material used for cleaning, . . . . .	1,675.17	
For salaries, wages, and incidental ex- penses, chargeable to passenger depart- ment, . . . . .	108,692.59	}
For salaries, wages, and incidental ex- penses, chargeable to freight depart- ment, . . . . .		
For gratuities and damages, . . . . .		
For taxes and insurance, . . . . .	35,619.65	
For ferries, . . . . .	17,056.01	
For repairs of station buildings, acque- ducts, fixtures, furniture, . . . . .	11,230.29	
For interest, . . . . .	64,326.75	
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company,		
For amount paid other companies, for the use of their roads, specifying each company, . . . . .		
For salaries, law expenses, office ex- penses of the above officers, and all other expenses not included in any of the foregoing items, . . . . .	42,124.88	
Total expenditures for working the road,		\$489,912.61
List of accidents to operatives and employees on the road, and the am't of damage, if any, paid to each case, naming each individual thus injured,		

## INCOME DURING THE YEAR.

*For Passengers :—*

On main road including branches owned by Company, . . . . .	}	Total, \$376,752.95 .
To and from other roads, specifying what,		

*For Freight :—*

On main road and branches owned by Company, . . . . .	}	Total, \$269,189.78
To and from connecting roads, . . . . .		
U. S. Mails, . . . . .		9,296.88
Rents, . . . . .		7,413.99
Total income, . . . . .		746,089.21
Net earnings, after deducting expenses, . . . . .		265,333.72
Gas, . . . . .		
Dividend Steamboat Company, . . . . .		

## DIVIDENDS.

2 dividends, $3\frac{1}{2}$ and 4 per cent. total, . . . . .	\$141,798.50
Surplus not divided, . . . . .	
Surplus last year, . . . . .	
Total surplus, . . . . .	

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ :

Road and bridges, . . . . .	}	nil.
Buildings, . . . . .		
Engines and cars, . . . . .		

S. D. BABCOCK, *President.*

STATE OF NEW YORK, }  
CITY AND COUNTY OF NEW YORK. } ss.

On this 26th day of January, A. D., 1871, personally appeared before me, S. D. Babcock, President of the New York, Providence, and Boston Railroad Company, who being by me duly sworn, did depose and say that the foregoing returns, subscribed by him, are true, to the best of his knowledge and belief.

EDWIN F. COREY,  
*Notary Public.*

## NEW HAVEN AND NORTHAMPTON RAILROAD.

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*Return of the New Haven and Northampton Railroad under the Act  
of 1853, for the 9 months ending Sept. 30, 1870.*

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Capital Stock, . . . . .	\$1,800,000.00
Increase of Capital, since last report, . . . . .	300,000.00
Capital paid in, per last report, . . . . .	1,500,000.00
Capital paid in, since last report, . . . . .	\$300,000.00
Total amount of Capital Stock paid in, . . . . .	1,800,000.00
Funded debt, per last report, . . . . .	1,000,000.00
Funded debt, paid since last report, . . . . .	
Funded debt, increase of, since last re- port, . . . . .	400,000.00
Total present amount of funded debt, . . . . .	1,400,000.00
Floating debt, per last report, . . . . .	259,431.37
Floating debt, paid since last report, . . . . .	73,226.49
Floating debt, increase of, since last re- port, . . . . .	
Total present amount of floating debt, . . . . .	186,204.88
Total present amount of funded and float- ing debt, . . . . .	1,586,204.88
Average rate of interest, per annum, paid during the year, 7 per ct. on 1,000,000.00 6 per ct. on 400,000.00	

### COST OF ROAD AND EQUIPMENT.\*

For graduation and masonry, per last report, . . . . .	
For graduation and masonry, paid dur- ing the past year, . . . . .	

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\* See explanation of cost of road opposite.



Total amount expended for graduation and masonry, . . . . .	
For wooden bridges, per last report,	
For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	
Total amount expended for iron bridges, (if any,) . . . . .	
For superstructure, including iron, per last report, . . . . .	
For superstructure, including iron, paid during the past year,	
Total amount expended for superstructure, including iron, . . . . .	
For stations, buildings, and fixtures, per last report, . . . . .	
For stations, buildings, and fixtures, paid during the past year, . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	
For land, land-damages, and fences, per last report, . . . . .	
For land, land-damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land damages, and fences,* . . . . .	
For locomotives, per last report,	\$174,158.87
For locomotives, paid during the past year, . . . . .	\$28,410.06

\* The Company is unable to give these items in detail, as the road was built by various Corporations.

The cost as reported to them to October 1, 1870, was :—

New Haven to Granby and Collinsville,	\$1,213,398.67
Granby to State Line, . . . . .	44,620.08
State Line to Northampton, . . . . .	691,081.01
Northampton to Williamsburgh, . . . . .	378,361.71
Collinsville to N. Hartford, now building,	257,857.05
Wharf, &c., at New Haven, . . . . .	108,842.71
Filling basin at New Haven, &c., . . . . .	202,931.31

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\$2,897 092.54

Total amount expended for locomotives,	\$202,568.93
For passenger and baggage cars, per last report, . . . .	\$69,382.72
For passenger and baggage cars, paid during the past year, .	
Total amount expended for passenger and baggage cars, .	69,382.72
For merchandise cars, per last report,	206,645.95
For merchandise cars, paid during the past year, . . . .	4,517.48
Total amount expended for merchandise cars, . . . .	211,163.43
For engineering, per last report,	} See note above.
For engineering, paid during the past year, . . . .	
Total amount expended for engineering, . . . .	
For agencies and other expenses, per last report, . . . .	
For agencies and other expenses, paid during the past year, .	
Total amount expended for agencies and other expenses, . . .	
Total cost of road and equipments,	

## CHARACTERISTICS OF ROAD.

Length of road, . . . .	99 $\frac{1}{100}$ miles.
Length of single main track, . . . .	99 $\frac{1}{100}$ miles.
Length of double main track,	
Length of branches owned by the company, stating whether they have a single or double track, . . . .	15 $\frac{13}{100}$ miles single track.
Aggregate length of sidings, and other tracks, excepting main track and branches,	
Weight of rail, per yard, in main road,	60 and 56 lbs.
Weight of rail, per yard, in branch roads, (specify the different weights per yard,)	54 and 56 lbs.
Maximum grade, with its length, in main road, . . . .	

Maximum grade, with its length in branch roads,	
Total rise and fall in main road,	.
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road,	
Shortest radius of curvature, with length of curve in branch roads,	
Total degrees of curvature, in main road,	
Total degrees of curvature in branch roads,	. . . . .
Total length of straight line in main road,	
Total length of straight line in branches,*	
Aggregate length of wooden truss bridges,	
Aggregate length of all other wooden bridges,	. . . . .
Aggregate length of iron bridges,	.
Whole length of road unfinished on both sides,	. . . . .
Number of public ways crossed at grade,	82 in Conn., and 48 in Mass.—130
Number of railroads crossed at grade,	2, B. & A. at Westfield, and H., P. & F., at Plainville.
Remarks,	. . . . .
Way stations for express trains,	18
Way stations for accommodation trains,	24
Flag stations,	6
Whole number of way stations,	24
Whole number of flag stations,	6

## DOINGS DURING THE YEAR.

Miles run by passenger trains,	142,891
Miles run by freight trains,	97,644
Miles run by other trains,	
Total miles run,	240,535
Number of passengers carried in the cars,	256,394

\* Original survey is not in possession of this Company, therefore these questions cannot be answered.

Number of passengers carried one mile,	3,784,198
Number of tons of merchandise carried in the cars, . . . . .	131,723
Number of tons of merchandise carried one mile, . . . . .	4,792,732
Number of passengers carried one mile to and from other roads, . . . .	1,091,396
Number of tons carried one mile, to and from other roads, . . . .	199,959
Rate of speed adopted for express pas- senger trains, including stops, . .	25 miles.
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	25 miles.
Rate of speed adopted for accommoda- tion trains, . . . . .	24 miles.
Rate of speed actually attained by ac- commodation trains, including stops and detentions, . . . . .	24 miles.
Average rate of speed adopted for freight trains, including stops and detentions,	10 miles.
Estimated weight in tons of passenger cars, (not including passengers,) hauled one mile, . . . . .	
Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile, . . . . .	

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, (exclusive of wooden bridges,) and renewals of iron, . . . . .	\$80,990.28	
Repairs of wooden bridges, . . . .	\$3,342.88	
For renewals of iron, including laying down,		
For wages of switchmen, average per month,		} Included in other acc'ts.
For wages of gate-keeper, average per month,		
For wages of signal-men, average per month,		
For wages of watchmen, average per month,		



Number of men employed, exclusive of those engaged in construction,	400
For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,)	\$584.66
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool-houses,	4,045.04
Total for maintenance of way,	88,962.86
Loss and damage of goods and baggage,	
Damages for injuries to persons,	} 497.50
Damages to property, including damages by fire,	
Damages for cattle killed on road,	

## MOTIVE POWER AND CARS.

For repairs of locomotives,	8,850 37
For new locomotives to cover depreciation,	
For repairs of passenger cars,	} 7,608.42
For new passenger cars to cover depreciation,	
For repairs of merchandise cars,	
For new merchandise cars to cover depreciation,	
Total for maintenance of motive power and cars,	16,458.79
Number of engines,	16
Number of passenger cars,	15
Number of baggage cars,	5
Number of merchandise cars,	195
Number of gravel cars,	40

## MISCELLANEOUS.

For fuel used by engines during the year, viz :	
Wood,	4,952.41
Coal,	36,371.70
For oil used by cars and engines,	4,263.68
For waste and other material for cleaning,	2,449.32

For salaries, wages, and incidental expenses, chargeable to passenger department, . . . . .	} 89,390.30	
For salaries, wages and incidental expenses, chargeable to freight department, . . . . .		
For gratuities and damages, . . . . .		
For taxes and insurance, . . . . .		Included in other accounts.
For ferries, . . . . .		
For repairs of station buildings, aqueducts, fixtures, furniture, . . . . .		1,465.71
For interest, . . . . .		
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company, . . . . .		
For amount paid other companies, for the use of their roads, specifying each company, . . . . .		
For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items, . . . . .		7,768.68
Total expenditures for working the road six months, . . . . .		229,695.33
		<hr/>
		\$335,614.48

## INCOME DURING SIX MONTHS.

*For Passengers:—*

On main road including branches owned by Company, . . . . .	125,055.93
To and from other roads, specifying what,	

*For Freight:—*

On main road, and branches owned by Company, . . . . .	\$226,519.38
To and from connecting roads, . . . . .	
U. S. Mails, . . . . .	4,395.86
Rents, express, wharf, &c., . . . . .	16,859.58

Total income,	372,830.75
Net earnings, after deducting expenses, expended in construction,	37,216.17

## DIVIDENDS.

per cent. total,	
Surplus not divided,	
Surplus last year,	
Total surplus,	

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Roads and bridges,	
Buildings,	
Engines and cars,	

CHAS. N. YEAMANS,  
*Vice President.*

Personally appeared, Chas. N. Yeamans, and made oath that the above statement is correct, to the best of his knowledge and belief.

GEORGE A. BUTLER,  
*Notary Public.*

## SHORE LINE RAILWAY.

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*Return of the Shore Line Railway, under the Act of 1853, for the  
year ending May 31st, 1870.*

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Capital Stock, . . . . .	\$994,300.00
Increase of Capital, since last report, . . . . .	316,400.00
Capital paid in, per last report, . . . . .	677,900.00
Capital paid in, since last report, . . . . .	316,400.00
Total Amount of Capital Stock paid in, . . . . .	994,300.00
Funded debt, per last Report, . . . . .	55,000.00
Funded debt, paid since last Report, . . . . .	
Funded debt, increase of, since last Report, . . . . .	145,000.00
Total present amount of funded debt, . . . . .	200,000.00
Floating debt, per last Report, . . . . .	
Floating debt, paid since last Report, . . . . .	
Floating debt, increase of, since last Report, . . . . .	
Total present amount of floating debt, . . . . .	
Total present amount of funded debt, . . . . .	200,000.00
Average rate of interest, per annum, paid during the year, . . . . .	7 per cent.

### COST OF ROAD AND EQUIPMENT.

For graduation and Masonry, per last Report, . . . . .	
For graduation and Masonry, paid during the past year, . . . . .	
Total amount expended for gradua- tion and masonry, . . . . .	
For wooden bridges, per last report, . . . . .	
For wooden bridges, paid during the past year, . . . . .	



Total amount expended for wooden  
 bridges, . . . .  
 Total amount expended for iron  
 bridges, (if any,) . . . .  
 For superstructure, including iron,  
 per last Report, . . . .  
 For superstructure, including iron,  
 paid during the past year, . . . .  
 Total amount expended for super-  
 structure, including iron, . . . .  
 For stations, buildings, and fixtures,  
 per last Report, . . . .  
 For stations, buildings, and fixtures,  
 paid during the past year, . . . .  
 Total amount expended for stations,  
 buildings, and fixtures, . . . .  
 For land, land-damages, and fences  
 per last Report, . . . .  
 For land, land-damages, and fences,  
 paid during the past year, . . . .  
 Total amount expended for land,  
 land-damages, and fences, . . . .  
 For locomotives per last Report, . . . .  
 For locomotives paid during the  
 past year, . . . .  
 Total amount expended for locomo-  
 tives, . . . .  
 For passenger and baggage cars,  
 per last Report, . . . .  
 For passenger and baggage cars,  
 paid during the past year, . . . .  
 Total amount expended for passen-  
 ger and baggage cars, . . . .  
 For merchandise cars, per last Re-  
 port, . . . .  
 For merchandise cars, paid during  
 the past year, . . . .  
 Total amount expended for mer-  
 chandise cars, . . . .  
 For engineering, per last Report, . . . .

For engineering, paid during the past year, . . . . .	
Total amount expended for engi- neering, . . . . .	
For agencies and other expenses, per last Report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	\$765,435.05

## CHARACTERISTICS OF ROAD.

Length of road, . . . . .	50 miles.
Length of single main track, . . . . .	
Length of double main track, . . . . .	
Length of branches owned by the company, stating whether they have a single or double track, . . . . .	
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	2½ miles.
Weight of rail, per yard, in main road,	56 pounds.
Weight of rail, per yard, in branch roads, . . . . .	56 “
Specify the different weights per yard,	
Maximum grade, with its length, in main road, . . . . .	44 feet, 400 feet long.
Maximum grade, with its length in branch roads, . . . . .	
Total rise and fall in main road,	
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road, . . . . .	573 feet, 400 feet long.
Shortest radius of curvature, with length of curve, in branch roads,	
Total degrees of curvature, in main rd.	
Total degrees of curvature, in branch roads, . . . . .	
Total length of straight line, in main road, . . . . .	30 miles.

Total length of straight line in branches,	
Aggregate length of wooden truss bridges,	1748 feet.
Aggregate length of all other wooden bridges, . . . . .	
Aggregate length of iron bridges, . . . . .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	88
Number of railroads crossed at grade,	1
Remarks, . . . . .	
Way stations for express trains, . . . . .	2
Way stations for accomodation trains,	13
Flag stations, . . . . .	4
Whole number of way stations, . . . . .	17
Whole number of flag stations, . . . . .	4

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	
Miles run by freight trains, . . . . .	
Miles run by other trains, . . . . .	
Total miles run, . . . . .	
Number of passengers carried in the cars,	
Number of passengers carried one mile,	
Number of tons of merchandise carried in the cars, . . . . .	
Number of tons of merchandise carried one mile, . . . . .	
Number of passengers carried one mile, to and from other roads, . . . . .	
Number of tons carried one mile to and from other roads, . . . . .	
Rate of speed adopted for express passenger trains, including stops, . . . . .	
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	
Rate of speed adopted for accommodation trains, . . . . .	30 miles per hour.
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	30 miles per hour.

Average rate of speed adopted for freight  
trains, including stops and detentions,

15 miles per hour.

Estimated weight, in tons, of passenger  
cars (not including passengers) hauled  
one mile, . . . . .

Estimated weight, in tons, of merchan-  
dise cars (not including freight)  
hauled one mile, . . . . .

#### EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, (exclusive of wooden bridges,) and renewals of iron, . . . . .	\$36,038.04
For repairs of wooden bridges, . . . . .	7,814.35
For renewals of iron, including laying down, . . . . .	
For wages of switchman, average per month, . . . . .	\$45
For wages of gate-keepers, average per month, . . . . .	
For wages of signal-men, average per month, . . . . .	
For wages of watchmen, average per month, . . . . .	\$50
Number of men employed, exclusive of those engaged in construction, . . . . .	
For removing ice and snow, (this item to include all labor, tools repairs, and extra steam power used,) . . . . .	
For repairs of fences, and all buildings, . . . . .	2,486.08
Total for maintenance of way, . . . . .	46,338.47
Loss and damage to goods and baggage, . . . . .	797.63
Damages for injuries to persons, . . . . .	
Damages to property, including dama- ges by fire, . . . . .	
Damages for cattle killed on road, . . . . .	
Repairs of buildings, . . . . .	

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#### MOTIVE POWER AND CARS.

For repairs of locomotives, . . . . .	\$15,298.11
For new locomotives to cover depre- ciation, . . . . .	



For repairs of passenger and merchandise cars, . . . . .	21,391.10	
For new passenger cars to cover depreciation . . . . .	2,411.23	
For repairs of merchandise cars, . . . . .		
For new merchandise cars to cover depreciation, . . . . .		
For repairs of gravel and other cars, . . . . .		
Total for maintenance of motive power and cars, . . . . .	39,100.44	
Number of engines, . . . . .		10
Number of passenger cars, . . . . .		14
Number of baggage cars, . . . . .		8
Number of merchandise cars, . . . . .		32
Number of gravel cars, . . . . .		

## MISCELLANEOUS.

Land purchased for Depot purposes, . . . . .		
Repairs of buildings, . . . . .		
Machinery and tools, . . . . .	1,758.08	
Water, . . . . .	315.00	
Line expenses, . . . . .	2,701.80	
Car service, . . . . .	366.87	
List of accidents to cattle, and the amount paid to each, . . . . .		
Fuel for stations and stationary engines, . . . . .	3,362.58	
For fuel used by engines during the year, viz.: . . . . .		
Wood, . . . . .	} 25,704.13	
Coal, . . . . .		
For oil used by cars and engines, . . . . .	} 5,880.98	
For waste and other material for cleaning, . . . . .		
For salaries, wages, and incidental expenses, chargeable to passenger department, . . . . .	} 53,254.04	
For salaries, wages, and incidental expenses, chargeable to freight department, . . . . .		

For taxes and insurance, . . . . .	15,923.96	
For ferries, and repairs of ferry boats, . . . . .	14,447.87	
For interest, on Bonds, . . . . .	8,109.68	
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company,		
For amount paid other companies, for the use of their roads, specifying each company, . . . . .		
For legal expenses, office expenses, and all other expenses not included in any of the foregoing items, . . . . .	4,041.90	
Total expenditures for working the road, including repairs and renewals, . . . . .		\$222,103.43
List of accidents to operatives and employees on the road, and the am't of damage, if any, paid to each case, naming each individual thus injured,		

## INCOME DURING THE YEAR.

*For Passengers :—*

On main road including branches owned by Company, . . . . .	\$232,678.74
To and from other roads, specifying what,	

*For Freight :—*

On main road and branches owned by Company, . . . . .	56,543.69
U. S. Mails, Rents, Express, and Interest, . . . . .	27,009.65
Total income, . . . . .	316,232.08
Net earnings, after deducting expenses, . . . . .	94,128.65

## DIVIDENDS.

Total, . . . . .	\$78,270.80
Surplus not divided, . . . . .	15,857.85
Surplus last year, . . . . .	
Total surplus, . . . . .	

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ :

Road and bridges, . . . . .	
Buildings, . . . . .	
Engines and cars, . . . . .	

EDWARD S. SCRANTON, *Secretary and Treasurer.*

CITY AND COUNTY OF NEW HAVEN, }  
STATE OF CONNECTICUT, ss. MARCH 20, 1871. }

Personally appeared, Edward S. Scranton, Secretary and Treasurer of Shore Line Railway, and made oath that the foregoing report is correct and true, according to his best knowledge and belief. Before me.

WM. T. BARTLETT,  
*Notary Public.*

## DANBURY AND NORWALK RAILROAD.

*Return of the Danbury and Norwalk Railroad, under Act of 1853,  
for the year ending Dec. 31st, 1870.*

Capital Stock, . . . . .	\$400,000.00
Increase of Capital since last Report,	
Capital paid in, per last Report, . . . . .	400,000.00
Capital paid in, since last Report,	
Total amount of Capital Stock paid in, . . . . .	400,000.00
Funded debt, per last Report, . . . . .	183,000.00
Funded debt, paid since last Report,	
Funded debt, increase of, since last Report, . . . . .	117,000.00
Total present amount of funded debt, . . . . .	300,000.00
Floating debt, per last Report, . . . . .	30,000.00
Floating debt, paid since last Report, . . . . .	30,000.00
Floating debt, increase of, since last Report, . . . . .	
Total present amount of Floating debt, . . . . .	none.
Total present amount of Funded and Floating debt, . . . . .	300,000.00
Average rate of interest, per annum, paid during the year, . . . . .	7 per cent.

### COST OF ROAD AND EQUIPMENT.

For construction account, per last Report, . . . . .	487,021.62
For construction account paid during the past year, . . . . .	94,057.72
Total amount expended for construction account, . . . . .	581,079.34
For wooden bridges, per last Report,	



For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	
Total amount expended for iron bridges, (if any,) . . . . .	
For superstructure, including iron, per last Report, . . . . .	
For superstructure, including iron, paid during the past year, . . . . .	
Total amount expended for superstructure, including iron, . . . . .	
For stations, buildings, and fixtures per last Report, . . . . .	
For stations, buildings, and fixtures paid during the past year, . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	
For land, land damages, and fences, per last Report, . . . . .	
For land, land damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land damages, and fences, . . . . .	
For locomotives and cars per last Report, . . . . .	\$87,783.23
For locomotives, and cars, paid during the past year, . . . . .	
Total amount expended for locomotives and cars, . . . . .	87,783.23
For passenger and baggage cars, per last Report, . . . . .	
For passenger and baggage cars, paid during the past year, . . . . .	
Total amount expended for passenger and baggage cars, . . . . .	
For merchandise cars, per last Report, . . . . .	
For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchandise cars, . . . . .	
For engineering, per last report, . . . . .	

For engineering, paid during the past year, . . . . .	
Total amount expended for engineering, . . . . .	
For agencies, and other expenses, per last report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	\$668,862.57

## CHARACTERISTICS OF THE ROAD.

Length of road, . . . . .	} 23 $\frac{8}{10}$ miles.
Length of single main track, . . . . .	
Length of double main track, . . . . .	
Length of branches owned by the company, stating whether they have a single or double track, . . . . .	4 miles single track.
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	about 4 miles.
Weight of rail, per yard, in main road, . . . . .	57 pounds.
Weight of rail, per yard, in branch roads, . . . . .	53 pounds.
Specify the different weights per yard, . . . . .	
Maximum grade, with its length, in main road, . . . . .	65 ft. per mile for 4,295 ft.
Maximum grade, with its length, in branch roads, . . . . .	121 ft. per mile for 7,100 ft.
Total rise and fall in main road, . . . . .	695 feet.
Total rise and fall in branch roads, . . . . .	345 feet.
Shortest radius of curvature, with length of curve in main road, . . . . .	573 ft. radius for 435 ft.
Shortest radius of curvature, with length of curve, in branch roads, . . . . .	573 ft. radius for 2350 ft.
Total degree of curvature, in main road, . . . . .	1,561°
Total degree of curvature in branch roads, . . . . .	694°
Total length of straight line, in main road, . . . . .	17 $\frac{8.5}{100}$ miles.
Total length of straight line in branches, . . . . .	2 $\frac{1.5}{100}$ miles.
Aggregate length of wooden truss bridges, . . . . .	839 feet.

Aggregate length of all other wooden bridges, . . . . .	134 feet.
Aggregate length of iron bridges, . . . . .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade, . . . . .	54
Number of railroads crossed at grade, . . . . .	
Remarks, . . . . .	
Way stations for express trains, . . . . .	
Way stations for accommodation trains, . . . . .	9
Flag stations, . . . . .	3
Whole number of way stations, . . . . .	9
Whole number of flag stations, . . . . .	3

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	47,950
Miles run by freight trains, . . . . .	21,900
Miles run by other trains, . . . . .	23,372
Total miles run, . . . . .	93,222
Number of passengers carried in the cars, . . . . .	131,501
Number of passengers carried one mile, . . . . .	1,549,669
Number of tons of merchandise carried in the cars, . . . . .	43,587
Number of tons of merchandise carried one mile, . . . . .	939,324
Number of passengers carried one mile, to and from other roads, . . . . .	443,920
Number of tons carried one mile, to and from other roads, . . . . .	244,656
Rate of speed adopted for express passenger trains, including stops, . . . . .	
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	
Rate of speed adopted for accommodation trains, . . . . .	25 miles per hour.
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	25 miles per hour.
Average rate of speed adopted for freight trains, including stops and detentions, . . . . .	12 miles per hour.

Estimated weight in tons, of passenger cars, (not including passengers,) hauled one mile, . . . . .

Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile, . . . . .

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, including renewals of iron, \$29,075.56

Repairs of wooden bridges, . . . . . 983.77

For renewals of iron including laying down, . . . . .

For wages of switchmen, average per month, . . . . . \$50

For wages of gate-keeper, average per month, . . . . .

For wages of signal men, average per month, . . . . .

For wages of watchmen, average per month, . . . . . \$50

Number of men employed, exclusive of those engaged in construction,

about 60

For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,) .

For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, and tool houses, . . . . . 594.27

Total for maintenance, . . . . .

Loss and damage of goods and baggage,	}	356.64
Damages for injuries to persons, .		
Damages to property, including damages by fire, . . . . .		
Damages for cattle killed on road, .		

## MOTIVE POWER AND CARS.

For repairs of locomotives, .	}	6,565.57
For new locomotives to cover depreciation, .		



For repairs on passenger cars, .	}	9,484.29
For new passenger cars to cover depreciation, . . . . .		
For repairs of merchandise cars,		
For new merchandise cars to cover depreciation, . . . . .		
For repairs of gravel and other cars,		
Total for maintenance of motive power and cars, . . . . .		
Number of engines, . . . . .		6
Number of passenger cars, . . . . .		6
Number of baggage cars, . . . . .		2
Number of merchandise cars, . . . . .		62
Number of gravel cars, . . . . .		

## MISCELLANEOUS.

List of accidents to persons :— Reported to Commissioners.

List of accidents to cattle and the amount paid for each, . . . . .

For fuel used by engines during the year, viz :

Coal and wood, . . . . . 11,795.62

For oil used by cars and engines, . . . . .

For waste and other material for cleaning,

For salaries, wages, and incidental expenses, chargeable to passenger department, . . . . .	}	27,624.36
For salaries, wages and incidental expenses, chargeable to freight department, . . . . .		

For gratuities and damages, . . . . .

For taxes and insurance, . . . . .

For ferries, . . . . .

For repairs of station buildings, aqueducts, fixtures, furniture, . . . . . 2,982.84

For interest, . . . . .

For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company, . . . . .

For amount paid other companies, for the use of their roads, specifying each company, . . . . .	
For all other expenses not included in any of the foregoing items, . . . . .	3,818 73
Total expenditures for working the road,	93,281.65
List of accidents to operatives and em- ployés on the road, and the amount of damage, if any, paid to each case, naming each individual thus injured,	

## INCOME DURING THE YEAR.

*For Passengers:—*

On main road, including branches owned by company, . . . . .	\$73,997.02
To and from other roads, specifying what,	

*For Freight:—*

On main road and branches owned by company, . . . . .	\$94,098.35
To and from connecting roads, . . . . .	
United States Mails, . . . . .	2,000 00
Rents and express, . . . . .	5,349.38
Total income, . . . . .	175,444.75
Net earnings, after deducting expenses,	82,163.10

## DIVIDENDS.

16 per cent. Total, . . . . .	
Surplus not divided, . . . . .	
Surplus last year, . . . . .	
Total surplus, . . . . .	

EDWIN LOCKWOOD,  
*President.*

FAIRFIELD COUNTY, SS. }  
NORWALK, Ct., Jan. 20th, 1871. }

Personally appeared, Edwin Lockwood, President of the Danbury and Norwalk Railroad Company, and made oath to the truth of the foregoing statement, by him subscribed, according to his best knowledge and belief. Before me,

ASA B. WOODWARD,  
*Justice of the Peace.*

## ROCKVILLE RAILROAD.

*Return of the Rockville Railroad, under the Act of 1853.*

Capital Stock, . . . . .	\$100,000.00	
Increase of Capital, since last report,		
Capital paid in, per last report, . . . . .	97,750.00	
Capital paid in, since last report,		
Total amount of Capital Stock paid in, . . . . .	97,750.00	
Funded debt, per last report, . . . . .	46,400.00	
Funded debt, paid since last report, . . . . .	7,000.00	
Funded debt, increase of, since last report, . . . . .		
Total present amount of funded debt, . . . . .	39,400.00	
Floating debt, per last report, . . . . .		
Floating debt, paid since last report, . . . . .		
Floating debt, increase of, since last report, . . . . .		
Total present amount of floating debt, . . . . .		
Total present amount of funded and floating debt, . . . . .	39,400.00	
Average rate of interest, per annum, paid during the year, . . . . .		7½ per cent

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last report, . . . . .	
For graduation and masonry, paid during the past year, . . . . .	
Total amount expended for graduation and masonry, . . . . .	
For wooden bridges, per last report, . . . . .	



For wooden bridges, paid during the  
     past year, . . . . .  
 Total amount expended for wooden  
     bridges, . . . . .  
 Total amount expended for iron bridg-  
     es, (if any,) . . . . .  
 For superstructure, including iron,  
     per last report, . . . . .  
 For superstructure, including iron,  
     paid during the past year, . . . . .  
 Total amount expended for super-  
     structure, including iron, . . . . .  
 For stations, buildings, and fixtures,  
     per last report, . . . . .  
 For stations, buildings, and fixtures,  
     paid during the past year, . . . . .  
 Total amount expended for stations,  
     buildings, and fixtures, . . . . .  
 For land, land-damages, and fences,  
     per last report, . . . . .  
 For land, land-damages, and fences,  
     paid during the past year, . . . . .  
 Total amount expended for land, land-  
     damages, and fences, . . . . .  
 For locomotives, per last report, . . . . .  
 For locomotives, paid during the past  
     year, . . . . .  
 Total am't expended for locomotives,  
 For passenger and baggage cars, per  
     last report, . . . . .  
 For passenger and baggage cars, paid  
     during the past year, . . . . .  
 Total amount expended for passenger  
     and baggage cars, . . . . .  
 For merchandise cars, per last report,  
 For merchandise cars, paid during the  
     past year, . . . . .  
 Total amount expended for merchan-  
     dise cars, . . . . .  
 For engineering, per last report,

For engineering, paid during the past  
 year, . . . . .  
 Total amount expended for engineer-  
 ing, . . . . .  
 For agencies and other expenses, per  
 last report, . . . . .  
 For agencies and other expenses, paid  
 during the past year, . . . . .  
 Total amount expended for agencies  
 and other expenses, . . . . .  
 Total cost of road and equipments,

## CHARACTERISTICS OF ROAD.

Length of road, . . . . .	4 $\frac{8}{10}$ miles.
Length of single main track, . . . . .	
Length of double main track, . . . . .	
Length of branches owned by the compa- ny, stating whether they have a single or double track, . . . . .	
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	$\frac{3}{4}$ mile.
Weight of rail, per yard, in main road, . . . . .	52 lbs.
Weight of rail, per yard, in branch roads, . . . . .	
Specify the different weights per yard, . . . . .	
Maximum grade, with its length, in main road, . . . . .	62 feet.
Maximum grade, with its length in branch roads, . . . . .	
Total rise and fall in main road, . . . . .	217 feet.
Total rise and fall in branch roads, . . . . .	
Shortest radius of curvature, with length of curve, in main road, . . . . .	716 radius, and 1050 ft. long.
Shortest radius of curvature, with length of curve in branch roads, . . . . .	
Total degrees of curvature, in main road, . . . . .	
Total degrees of curvature, in branch roads, . . . . .	
Total length of straight line, in main road, . . . . .	3 $\frac{3}{10}$ miles.
Total length of straight line, in branches, . . . . .	
Aggregate length of wooden and truss bridges, . . . . .	

Aggregate length of all other wooden bridges,	
Aggregate length of iron bridges,	
Whole length of road unfinished on both sides,	
Number of public ways crossed at grade,	6
Number of railroads crossed at grade,	
Remarks,	
Way stations for express trains,	1
Way stations for accommodation trains,	2
Flag stations,	2
Whole number of way stations,	2
Whole number of flag stations,	1

## DOINGS DURING THE YEAR.

Miles run by passenger trains,	
Miles run by freight trains,	
Miles run by other trains,	
Total miles run,	
Number of passengers carried in the cars,	
Number of passengers carried one mile,	
Number of tons of merchandise carried in the cars,	
Number of tons of merchandise carried one mile,	
Number of passengers carried one mile to and from other roads,	
Number of tons carried one mile, to and from other roads,	
Rate of speed adopted for express passenger trains, including stops,	
Average rate of speed actually attained by express passenger trains, including stops and detentions,	
Rate of speed adopted for accommodation trains,	
Rate of speed actually attained by accommodation trains, including stops and detentions,	

Average rate of speed adopted for freight trains, including stops and detentions,

Estimated weight in tons of passenger cars, (not including passengers,) hauled one mile, . . . . .

Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile, . . . . .

EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, (exclusive of wooden bridges,) and renewals of iron, . . . . .

Repairs of wooden bridges, . . . . .

For renewals of iron, including laying down,

For wages of switchmen, average per month, . . . . .

For wages of gate-keeper, average per month, . . . . .

For wages of signal-men, average per month, . . . . .

For wages of watchmen, average per month, . . . . .

Number of men employed, exclusive of those engaged in construction,

For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,)

For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool-houses, . . . . .

Total for maintenance . . . . .

Loss and damage of goods and baggage,

Damages for injuries to persons, . . . . .

Damages to property, including damages by fire, . . . . .

Damages for cattle killed on road, . . . . .

MOTIVE POWER AND CARS.

For repairs of locomotives, . . . . .

For new locomotives to cover depreciation, . . . . .



For repairs on passenger cars,	.
For new passenger cars, to cover depreciation,	. . . . .
For repairs on merchandise cars,	.
For new merchandise cars to cover depreciation,	. . . . .
For repairs of gravel and other cars,	.
Total for maintenance of motive power and cars,	. . . . .
Number of engines,	. . . . .
Number of passenger cars,	. . . . .
Number of baggage cars,	. . . . .
Number of merchandise cars,	. . . . .
Number of gravel cars,	. . . . .

#### • MISCELLANEOUS.

List of accidents to persons,	. . . . .
List of accidents to cattle and the amount paid to each,	. . . . .
For fuel used by engines during the year, viz :	
Wood,	. . . . .
Coal,	. . . . .
For oil used by cars and engines,	.
For waste and other materials for cleaning,	
For salaries, wages, and incidental expenses, chargeable to passenger department,	. . . . .
For salaries, wages, and incidental expenses, chargeable to freight department,	. . . . .
For gratuities and damages,	.
For taxes and insurance,	. . . . .
For ferries,	. . . . .
For repairs of station buildings, aqueducts, fixtures, furniture,	.
For interest,	. . . . .
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company,	

For amount paid other companies, for  
the use of their roads, specifying each  
company, . . . . .

For salaries of president, treasurer, su-  
perintendent, law expenses, office ex-  
penses of the above officers, and all  
other expenses not included in any of  
the foregoing items, . . . . .

Total expenditures for working the road,

List of accidents to operatives and em-  
ployees on the road, and the amount  
of damage, if any, paid to each case,  
naming each individual thus injured.

INCOME DURING THE YEAR.

*For Passengers:—*

On main road including branches owned  
by Company, . . . . .  
To and from other roads, specifying what,

*For Freight:—*

On main road, and branches owned by  
Company, . . . . .  
To and from connecting roads, . . . . .  
U. S. Mails, . . . . .  
Rents, . . . . .  
Total income, . . . . .  
Net earnings, . . . . .  
Expense and lease account, . . . . .  
Car account, . . . . .

DIVIDENDS.

Four per cent. total, preferred stock, . . . . .  
Surplus not divided, . . . . .  
Surplus last year, . . . . .  
Total surplus, . . . . .

ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Roads and bridges, . . . . .  
Buildings, . . . . .  
Engines and cars, . . . . .

## NEW CANAAN RAILROAD.

*Return of the New Canaan Railroad, under the Act of 1853, for the  
year ending Dec. 31st, 1870.*

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Capital Stock, by charter, . . .	\$200,000.00
Increase of Capital, since last report, amount subscribed, . . .	
Capital paid in, per last report, . . .	162,772.50
Capital paid in, since last report, . . .	464.77
Total Amount of Capital Stock paid in, . . .	163,905.08
Funded debt, per last Report, . . .	65,308.32
Funded debt, paid since last Report, . . .	
Funded debt, increase of, since last Report, . . .	
Total present amount of funded debt, . . .	75,756.27
Floating debt, per last Report, . . .	29,567.42
Floating debt, paid since last Report, . . .	
Floating debt, increase of, since last Report, . . .	
Total present amount of floating debt, . . .	5,689.46
Total present amount of funded and floating debt, . . .	81,445.73
Average rate of interest, per annum, paid during the year, . . .	7 per cent.

### COST OF ROAD AND EQUIPMENT.

For graduation and Masonry, per last Report, . . .	124,059.21
For graduation and Masonry, paid during the past year, . . .	343.41
Total amount expended for gradua- tion and masonry, . . .	
For wooden bridges, per last report, . . .	626.19
For wooden bridges, paid during the past year, . . .	

Total amount expended for wooden bridges, . . . .	
Total amount expended for iron bridges, (if any,) . . . .	
For superstructure, including iron, per last Report, . . . .	
For superstructure, including iron, paid during the past year, . . . .	
Total amount expended for superstructure, including iron and ties, . . . .	66,745.19
For stations, buildings, and fixtures, per last Report, . . . .	6,991.23
For stations, buildings, and fixtures, paid during the past year, . . . .	106.14
Total amount expended for stations, buildings, and fixtures, . . . .	7,168.07
For land, land-damages, and fences per last Report, . . . .	21,255.05
For land, land-damages, and fences, paid during the past year, . . . .	175.00
Total amount expended for land, land-damages, and fences, . . . .	
For locomotives per last Report, . . . .	
For locomotives paid during the past year, . . . .	
Total amount expended for locomotives, one locomotive, . . . .	5,550.00
For passenger and baggage cars, per last Report, . . . .	
For passenger and baggage cars, paid during the past year, New England car, . . . .	*10,000.00
Total amount expended for passenger and baggage cars, . . . .	
For merchandise cars, per last Report, . . . .	
For merchandise cars, paid during the past year, . . . .	
Total amount expended for merchandise cars, . . . .	

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\* Engine, baggage apartment and forty seats for passengers.



For engineering, per last Report, .	6,640.58
For engineering, paid during the past year, . . . . .	
Total amount expended for engi- neering, . . . . .	
For agencies and other expenses, per last Report, . . . . .	1,857.08
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	\$245,982.73

## CHARACTERISTICS OF ROAD.

Length of road, . . . . .	8 $\frac{1}{2}$ $\frac{3}{4}$ miles.
Length of single main track, . . . . .	
Length of double main track, . . . . .	
Length of branches owned by the company, stating whether they have a single or double track, . . . . .	
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	1,920 feet.
Weight of rail, per yard, in main road,	50 pounds.
Weight of rail, per yard, in branch roads, . . . . .	
Specify the different weights per yard,	
Maximum grade, with its length, in main road, . . . . .	
Maximum grade, with its length in branch roads, . . . . .	
Total rise and fall in main road,	
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road, . . . . .	
Shortest radius of curvature, with length of curve, in branch roads,	
Total degrees of curvature, in main rd.	
Total degrees of curvature, in branch roads, . . . . .	
Total length of straight line, in main road, . . . . .	

Total length of straight line in branches,	
Aggregate length of wooden truss bridges,	
Aggregate length of all other wooden bridges, . . . . .	
Aggregate length of iron bridges, .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	10
Number of railways crossed at grade,	
Remarks, . . . . .	All grades ascending from Stamford.
Way stations for express trains, .	
Way stations for accommodation trains,	3
Flag stations, . . . . .	1
Whole number of way stations, .	
Whole number of flag stations, .	

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	} 19,744	
Miles run by freight trains, . . . . .		
Miles run by other trains, . . . . .		400
Total miles run, . . . . .		20,144
Number of passengers carried in the cars,		37,829
Number of passengers carried one mile,		247,091
Number of tons of merchandise carried in the cars, . . . . .		3,832
Number of tons of merchandise carried one mile, . . . . .		30,150
Number of passengers carried one mile, to and from other roads, . . . . .		
Number of tons carried one mile to and from other roads, . . . . .		
Rate of speed adopted for express passenger trains, including stops, .		
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .		
Rate of speed adopted for accommodation trains, . . . . .	20 miles per hour.	
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	16 miles per hour.	

Average rate of speed adopted for freight trains, including stops and detentions,	
Estimated weight, in tons, of passenger cars (not including passengers) hauled one mile, . . . . .	283,760
Estimated weight, in tons, of merchandise cars (not including freight) hauled one mile, . . . . .	203,904

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, (exclusive of wooden bridges,) and renewals of iron, . . . . .	\$2,640.00	
For repairs of wooden bridges, . . . . .		
For renewals of iron, including laying down, . . . . .		
For wages of switchmen, average per month, . . . . .		
For wages of gate-keeper, average per month, . . . . .		
For wages of signal-men, average per month, . . . . .		
For wages of watchmen, average per month, . . . . .	\$45	
Number of men employed, exclusive of those engaged in construction, . . . . .		11
For removing ice and snow, (this item to include all labor, tools repairs, and extra steam power used,) . . . . .		
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool houses, . . . . .		
Total for maintenance of way, . . . . .		
Loss and damage of goods and baggage, . . . . .		
Damages for injuries to persons, . . . . .		
Damages to property, including damages by fire, . . . . .		
Damages for cattle killed on road, . . . . .		

## MOTIVE POWER AND CARS.

For repairs of locomotives, . . . . .	\$993.66
For new locomotives to cover depreciation, (rent of engines,) . . . . .	

For repairs on passenger cars, . . . . .	
For new passenger cars to cover de- preciation . . . . .	
For repairs of merchandise cars,	
For new merchandise cars to cover depreciation, . . . . .	
For repairs of gravel and other cars,	
Total for maintenance of motive power and cars, . . . . .	
Number of engines, . . . . .	2
Number of passenger cars, . . . . .	none.
Number of baggage cars, . . . . .	
Number of merchandise cars, . . . . .	
Number of gravel cars, . . . . .	

## MISCELLANEOUS.

For fuel used by engines, . . . . .	
Wood, . . . . .	} 2,098.14
Coal, . . . . .	
For oil used by cars and engines, . . . . .	211.19
For waste and other material for cleaning, . . . . .	126.72
For salaries, wages, and incidental ex- penses, chargeable to passenger depart- ment, . . . . .	} 8,749.62
For salaries, wages, and incidental ex- penses, chargeable to freight depart- ment, . . . . .	
For gratuities and damages, . . . . .	
For taxes and insurance, . . . . .	1,342.51
For ferries, . . . . .	14,447.87
For repairs of station buildings, acque- ducts, fixtures, furniture, . . . . .	
For interest, . . . . .	5,323.92
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company, . . . . .	4,310.75 to N. Y. & N. H.
For amount paid other companies, for the use of their roads, specifying each company, . . . . .	



For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items,\* . . . \$338.00 law expenses.  
 Total expenditure for working the road,

## INCOME DURING THE YEAR.

*For Passengers :—*

On main road including branches owned by Company, . . . \$9,855.24  
 To and from other roads, specifying what,

*For Freight :—*

On main road and branches owned by Company, . . . 5,269.30  
 To and from connecting roads, . . .  
 U. S. Mails, Expresses, &c., . . . 473.94  
 Total income, . . . 15,598.48  
 Net earnings, after deducting running expenses and interest, . . .

## DIVIDENDS.

Surplus not divided, . . .  
 Surplus last year, . . .  
 Total surplus, . . .

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ :

Road and bridges, . . .  
 Buildings, . . .  
 Engines and cars, . . .

SAMUEL ST. JOHN, *President N. C. R. R.*

STATE OF CONNECTICUT, FAIRFIELD COUNTY, ss. }  
 NEW CANAAN, Jan. 28, 1871. }

Personally appeared Samuel St. John, signer of the above report, and made oath to the truth of the same, according to his best knowledge and belief,

NOAH W. HOYT,

*Notary Public.*

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\* No salaries to officers named, nor office expenses.

# NEW YORK, HOUSATONIC, AND NORTHERN RAILROAD.

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*Return of the New York, Housatonic, and Northern Railroad, under  
the Act of 1853, for the year ending Sept. 30, 1870.*

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Capital Stock,	\$1,000,000.00
Increase of Capital, since last report,	
Capital paid in, per last report,	198,400.00
Capital paid in, since last report,	
Total amount of Capital Stock paid in,	221,700.00
Funded debt, per last report,	102,000.00
Funded debt, paid since last report,	
Funded debt, increase of, since last re- port,	
Total present amount of funded debt,	141,500.00
Floating debt, per last report,	40,000.00
Floating debt, paid since last report,	
Floating debt, increase of, since last re- port,	
Total present amount of floating debt,	33,000.00
Total present amount of funded and float- ing debt,	174,900.00
Average rate of interest, per annum, paid during the year,	7 per ct.

## COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last report,	95,841.95
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For graduation and masonry, paid during the past year, . . . . .	
Total amount expended for graduation and masonry, . . . . .	151,634.44
For wooden bridges, per last report, . . . . .	907.28
For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	1,120.36
Total amount expended for iron bridges, (if any,) . . . . .	
For superstructure, including iron, per last report, . . . . .	80,905.96
For superstructure, including iron, paid during the past year, . . . . .	
Total amount expended for superstructure, including iron, . . . . .	99,975.16
For stations, buildings, and fixtures, per last report, . . . . .	417.14
For stations, buildings, and fixtures, paid during the past year, . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	577.01
For land, land-damages, and fences, per last report, . . . . .	22,253.31
For land, land-damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land damages, and fences, . . . . .	33,147.07
For locomotives, per last report, . . . . .	1,698.64
For locomotives, paid during the past year, . . . . .	
Total amount expended for locomotives, . . . . .	3,127.04
For passenger and baggage cars, per last report, . . . . .	4,500.00
For passenger and baggage cars, paid during the past year, . . . . .	
Total amount expended for passenger and baggage cars, . . . . .	5,524.00
For merchandise cars, per last report, . . . . .	3,310.74

For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchandise cars, . . . . .	4,086.13
For engineering and agencies, per last report, . . . . .	68,838.59
For engineering, paid during the past year, . . . . .	
Total amount expended for engineering, . . . . .	
For engineering, agencies, and other expenses, per last report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for engineering, agencies and other expenses, . . . . .	94,896.78
Total cost of road and equipments, to date, . . . . .	\$394,487.99

#### CHARACTERISTICS OF THE ROAD.

Length of road, . . . . .	39 $\frac{7.5}{100}$ miles.	About 5 miles finished.
Length of single main track, . . . . .		
Length of double main track, . . . . .		
Length of branches owned by the company, stating whether they have a single or double track, . . . . .		
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .		
Weight of rail, per yard, in main road, . . . . .	58 to 60 pounds.	
Weight of rail, per yard, in branch roads, . . . . .		
Specify the different weights per yard, . . . . .		
Maximum grade, with its length, in main road, . . . . .	60 ft. per mile.	
Maximum grade, with its length, in branch roads, . . . . .		
Total rise and fall in main road, . . . . .		
Total rise and fall in branch roads, . . . . .		
Shortest radius of curvature, with length of curve in main road, . . . . .	1,146 feet.	



Shortest radius of curvature, with length of curve, in branch roads, . . . . .	
Total degree of curvature, in main road, . . . . .	30°
Total degree of curvature in branch roads, . . . . .	70°
Total length of straight line, in main road, . . . . .	
Total length of straight line in branches, . . . . .	
Aggregate length of wooden truss bridges, . . . . .	
Aggregate length of all other wooden bridges, . . . . .	
Aggregate length of iron bridges, . . . . .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade, . . . . .	
Number of railroads crossed at grade, . . . . .	
Remarks, . . . . .	
Way stations for express trains, . . . . .	
Way stations for accommodation trains, . . . . .	
Flag stations, . . . . .	
Whole number of way stations, . . . . .	
Whole number of flag stations, . . . . .	

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	
Miles run by freight trains, . . . . .	
Miles run by mixed trains, . . . . .	10,800
Total miles run, . . . . .	10,800
Number of passengers carried in the cars, . . . . .	7,620
Number of passengers carried one mile, . . . . .	38,100
Number of tons of merchandise carried in the cars, . . . . .	3,475
Number of tons of merchandise carried one mile, . . . . .	17,375
Number of passengers carried one mile, to and from other roads, . . . . .	
Number of tons carried one mile, to and from other roads, . . . . .	
Rate of speed adopted for express pas- senger trains, including stops, . . . . .	
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	

Rate of speed adopted for accommodation trains, . . . . .	
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	} 12 miles per hour.
Average rate of speed adopted for freight trains, including stops and detentions, . . . . .	
Estimated weight in tons, of passenger cars, (not including passengers,) hauled one mile, . . . . .	
Estimated weight in tons of merchandise cars, (not including freight,) hauled one mile, . . . . .	

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, exclusive of wooden bridges and renewals of iron, . . . . .	\$2,848.80
Repairs of wooden bridges, . . . . .	
For renewals of iron including laying down, . . . . .	
For wages of switchmen, average per month, . . . . .	} Total, 652.50
For wages of gate-keeper, average per month, . . . . .	
For wages of signal-men, average per month, . . . . .	
For wages of watchmen, average per month, . . . . .	
Number of men employed, exclusive of those engaged in construction,	
For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam-power used,) . . . . .	
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, and tool houses, . . . . .	
Total for maintenance of way, . . . . .	
Loss and damage of goods and baggage, . . . . .	
Damages for injuries to persons, . . . . .	

Damages to property, including damages

by fire, . . . . .

Damages for cattle killed on road, .

## MOTIVE POWER AND CARS.

For repairs of locomotives, . . . \$574.31

For new locomotives to cover depreciation, . . . . .

For repairs on passenger and merchandise cars, . . . . . 72.86

For new passenger cars to cover depreciation, . . . . .

For repairs of merchandise cars,

For new merchandise cars to cover depreciation, . . . . .

For repairs of gravel and other cars,

Total for maintenance of motive power and cars, . . . . .

Number of engines, . . . 1

Number of passenger cars, . . . 1

Number of baggage cars, . . .

Number of merchandise cars, . . . 3

Number of gravel cars, . . .

## MISCELLANEOUS.

For fuel used by engines during the year, viz :

Wood, . . . . . } 1,054.05

Coal, . . . . . }

For oil used by cars and engines, }

For waste and other material for cleaning, . . . . . } 202.00

For salaries, wages, and incidental expenses, chargeable to passenger department, . . . . . }

For salaries, wages and incidental expenses, chargeable to freight department, . . . . . } 1,779.75

For gratuities and damages, . . . 7.14

For taxes and insurance, . . . 454.62

For ferries, . . . . .	
For repairs of station buildings, acqueducts, fixtures, furniture, . . . . .	\$250.00
For interest, . . . . .	4,743.50
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company, . . . . .	
For amount paid other companies, for the use of their roads, specifying each company, . . . . .	
For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items, . . . . .	Included in "Engineering and Agencies."
Total expenditures for working the road,	

## INCOME DURING THE YEAR.

*For Passengers:—*

On main road, including branches owned by company, . . . . .	\$3,850.74
To and from other roads, specifying what,	

*For Freight:—*

On main road and branches owned by company, . . . . .	\$2,994.33
To and from connecting roads, . . . . .	
United States Mails, . . . . .	
Rents, . . . . .	
Total income, . . . . .	6,845.07
Net earnings, after deducting expenses,	

## DIVIDENDS.

per cent. Total, . . . . .	
Surplus not divided, . . . . .	
Surplus last year, . . . . .	
Total surplus, . . . . .	



ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ:

Roads and bridges, . . .  
Buildings, . . .  
Engines and cars, . . .

STATE OF NEW YORK, CITY AND COUNTY OF NEW YORK, ss.

George W. Mead, President of the New York, Housatonic, and Northern Railroad Company, being duly sworn, says, that the foregoing report is true, according to the best of his knowledge, information, and belief.

GEO. W. MEAD.

Sworn before me, this 1st day of February, 1871.

SEWALL SERGEANT,

*Notary Public,*

New York County.

## NEW HAVEN AND DERBY RAILROAD.

*Return of the New Haven and Derby Railroad, under the Act of 1853.*

Capital Stock, . . . . .	\$426,000.00	
Increase of Capital, since last report,		
Capital paid in, per last report, . . . . .		
Capital paid in, since last report,		
Total amount of Capital Stock paid in,		
Funded debt, per last report, . . . . .		
Funded debt, paid since last report, . . . . .	525,000.00	
Funded debt, increase of, since last report, . . . . .		
Total present amount of funded debt,		
Floating debt, per last report,		
Floating debt, paid since last report,		
Floating debt, increase of, since last report, . . . . .		
Total present amount of floating debt,		
Total present amount of funded and floating debt, . . . . .		
Average rate of interest, per annum, paid during the year, . . . . .		7 per cent.

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last report, . . . . .	
For graduation and masonry, paid during the past year, . . . . .	
Total amount expended for graduation and masonry, . . . . .	573,658.90

For wooden bridges, per last report,	
For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	
Total amount expended for iron bridg- es, (if any,) . . . . .	
For superstructure, including iron, per last report, . . . . .	
For superstructure, including iron, paid during the past year, . . . . .	
Total amount expended for super- structure, including iron, . . . . .	\$638,320.38
For stations, buildings, and fixtures, per last report, . . . . .	
For stations, buildings, and fixtures, paid during the past year, . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	
For land, land-damages, and fences, per last report, . . . . .	
For land, land-damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land- damages, and fences, . . . . .	172,314.00
For locomotives, per last report, . . . . .	
For locomotives, paid during the past year, . . . . .	
Total am't expended for locomotives,	
For passenger and baggage cars, per last report, . . . . .	
For passenger and baggage cars, paid during the past year, . . . . .	
Total amount expended for passenger and baggage cars, . . . . .	
For merchandise cars, per last report,	
For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchan- dise cars, . . . . .	

For engineering, per last report,	
For engineering, paid during the past year,	
Total amount expended for engineering,	\$23,835.07
For agencies and other expenses, per last report,	
For agencies and other expenses, paid during the past year,	
Total amount expended for agencies and other expenses,	
Total cost of road and equipments,	

## CHARACTERISTICS OF ROAD.

Length of road,	10 $\frac{1}{3}$ miles.
Length of single main track,	
Length of double main track,	
Length of branches owned by the company, stating whether they have a single or double track,	
Aggregate length of sidings, and other tracks, excepting maid track and branches,	
Weight of rail, per yard, in main road,	48 lbs.
Weight of rail, per yard, in branch roads,	
Specify the different weights per yard,	
Maximum grade, with its length, in main road,	
Maximum grade, with its length, in branch roads,	
Total rise and fall in main road,	
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road,	
Shortest radius of curvature, with length of curve, in branch roads,	
Total degrees of curvature, in main road,	
Total degrees of curvature, in branch roads,	
Total length of straight line in main road,	
Total length of straight line in branches,	



Aggregate length of wooden truss bridges,  
Aggregate length of all other wooden  
bridges, . . . . .

Aggregate length of iron bridges,

Whole length of road unfinished on both  
sides, . . . . .

Number of public ways crossed at grade,

Number of railroads crossed at grade,

Remarks, . . . . .

Way stations for express trains,

Way stations for accommodation trains, .

Flag stations, . . . . .

Whole number of way stations,

Whole number of flag stations,

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*(In process of construction.)*

## BOSTON, HARTFORD, AND ERIE RAILROAD.

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*Return of the Boston, Hartford, and Erie Railroad, under Act of  
1853, for 10 months, ending Sept. 30, 1870.*

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Capital Stock, . . . . .  
Increase of Capital since last Report,  
Capital paid in, per last Report, .  
Capital paid in, since last Report,  
Total amount of Capital Stock paid in,  
Funded debt, per last Report, .  
Funded debt, paid since last Report,  
Funded debt, increase of, since last Report,  
    . . . . .  
Total present amount of funded debt,  
Floating debt, per last Report, .  
Floating debt, paid since last Report,  
Floating debt, increase of, since last Report,  
    . . . . .  
Total present amount of Floating debt,  
Total present amount of Funded and  
    Floating debt, . . . . .  
Average rate of interest, per annum, paid  
    during the year, . . . . .

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last  
    report, . . . . .  
For graduation and masonry, paid during  
    the past year, . . . . .  
Total amount expended for graduation  
    and masonry, . . . . .  
For wooden bridges, per last Report,

For wooden bridges, paid during the past year, . . . . .	.
Total amount expended for wooden bridges, . . . . .	.
Total amount expended for iron bridges, (if any,) . . . . .	.
For superstructure, including iron, per last Report, . . . . .	.
For superstructure, including iron, paid during the past year, . . . . .	.
Total amount expended for superstruc- ture, including iron, . . . . .	.
For stations, buildings, and fixtures per last Report, . . . . .	.
For stations, buildings, and fixtures paid during the past year, . . . . .	.
Total amount expended for stations, buildings, and fixtures, . . . . .	.
For land, land damages, and fences, per last Report, . . . . .	.
For land, land damages, and fences, paid during the past year, . . . . .	.
Total amount expended for land, land- damages, and fences, . . . . .	.
For locomotives, per last Report, . . . . .	.
For locomotives paid during the past year, . . . . .	.
Total amount expended for locomotives	.
For passenger and baggage cars, per last Report, . . . . .	.
For passenger and baggage cars, paid during the past year, . . . . .	.
Total amount expended for passenger and baggage cars, . . . . .	.
For merchandise cars, per last Report, . . . . .	.
For merchandise cars, paid during the past year, . . . . .	.
Total amount expended for merchandise cars, . . . . .	.
For engineering, per last report, . . . . .	.

For engineering, paid during the  
 past year, . . . .  
 Total amount expended for engi-  
 neering, . . . .  
 For agencies and other expenses,  
 per last Report, . . . .  
 For agencies and other expenses,  
 paid during the past year, . . . .  
 Total amount expended for agencies  
 and other expenses, . . . .  
 Total cost of road and equipments,

## CHARACTERISTICS OF ROAD.

Length of road, . . . .	113 miles.
Length of single main track, . . . .	100 miles.
Length of double main track, . . . .	12½ miles.
Length of branches owned by the company, stating whether they have a single or double track, . . . .	50 miles single track.
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . .	15 $\frac{810}{5280}$ miles.
Weight of rail, per yard, in main road,	56, 60, and 63 pounds.
Weight of rail, per yard, in branch roads, . . . .	50 and 56 pounds.
Specify the different weights per yard,	.
Maximum grade, with its length, in main road, . . . .	59.66 ft. per mile for 8,300 feet.
Maximum grade, with its length in branch roads, . . . .	66 " 900 feet.
Total rise and fall in main road,	23,057 feet.
Total rise and fall in branch roads,	310 feet.
Shortest radius of curvature, with length of curve, in main road, . . . .	951 feet radius for 1,350 feet
Shortest radius of curvature, with length of curve, in branch roads, . . . .	995 " 1,195 feet.
Total degrees of curvature, in main rd.	1,920° 52'
Total degrees of curvature, in branch roads, . . . .	796° 15'
Total length of straight line, in main road, . . . .	60.96 miles.



Total length of straight line in branches,	7.66 miles.
Aggregate length of wooden truss bridges,	3720 feet.
Aggregate length of all other wooden bridges, . . . . .	4282 feet.
Aggregate length of iron bridges, . . . . .	339 feet.
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	130
Number of railroads crossed at grade,	2 in two places each.
Remarks, . . . . .	
Way stations for express trains, . . . . .	6
Way stations for accommodation trains, . . . . .	49
Flag stations, . . . . .	16
Whole number of way stations, . . . . .	65
Whole number of flag stations, . . . . .	16

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . . .	252,501
Miles run by freight trains, . . . . .	106,447
Miles run by other trains, . . . . .	37,608
Total miles run, . . . . .	396,556
Number of passengers carried in the cars, . . . . .	1,184,360
Number of passengers carried one mile, . . . . .	11,603,003
Number of tons of merchandise carried in the cars, . . . . .	214,191
Number of tons of merchandise carried one mile, . . . . .	5,936,796
Number of passengers carried one mile, to and from other roads, . . . . .	3,672,663
Number of tons carried one mile to and from other roads, . . . . .	5,853,763
Rate of speed adopted for express passenger trains, including stops, . . . . .	30 miles.
Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	35 miles per hour.
Rate of speed adopted for accommodation trains, . . . . .	25 miles per hour.
Rate of speed actually attained by accommodation trains, including stops and detentions, . . . . .	30 miles per hour.

Average rate of speed adopted for freight trains, including stops and detentions,	15 miles per hour.
Estimated weight, in tons, of passenger cars (not including passengers) hauled one mile, . . . . .	12,904,693
Estimated weight, in tons, of merchandise cars (not including freight) hauled one mile, . . . . .	9,173,309

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, (exclusive of wooden bridges,) and renewals of iron, . . . . .	\$48,628.24	
For repairs of bridges, . . . . .	2,999.22	
For renewals of iron, including laying down, . . . . .		
For wages of switchmen, average per month, . . . . . \$45.50	1,557.60	
For wages of gate-keeper, average per month, . . . . . \$30	4,057.39	
For wages of signal-men, average per month, . . . . .		
For wages of watchmen, average per month, . . . . . \$60	3,478.65	
Number of men employed, exclusive of those engaged in construction, . . . . .		511
For removing ice and snow, (this item to include all labor, tools repairs, and extra steam-power used,) . . . . .	44.12	
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool houses, . . . . .	119.00	
Total for maintenance of way, . . . . .		\$60,884.22
Loss and damage of goods and baggage, . . . . .		
Damages for injuries to persons, . . . . .		
Damages to property, including damages by fire, . . . . .		
Damages for cattle killed on road, . . . . .		

## MOTIVE POWER AND CARS.

For repairs of locomotives, . . . . .	\$7,341.36
For new locomotives to cover depreciation, . . . . .	

For repairs on passenger cars, . . . . .	5,086.64	
For new passenger cars to cover de- preciation . . . . .	2,809.79	
For repairs of merchandise cars, . . . . .	2,685.23	
For new merchandise cars to cover depreciation, . . . . .	1,057.37	
For repairs of gravel and other cars, Total for maintenance of motive power and cars, . . . . .		\$18,980.39
Number of engines, . . . . .		23
Number of passenger cars, . . . . .		35
Number of baggage cars, . . . . .		10
Number of merchandise cars, . . . . .		300
Number of gravel cars, . . . . .		119

## MISCELLANEOUS.

For miscellaneous chargeable to cost of road and equipment, . . . . .	103,990.39	
For fuel used by engines during the year, viz:—		
Wood, . . . . .	707.70	
Coal, . . . . .	29,820.82	
For oil used by cars and engines, . . . . .	1,924.72	
For waste and other material for cleaning, . . . . .	452.85	
For salaries, wages, and incidental ex- penses, chargeable to passenger depart- ment, . . . . .	\$21,302.49	
For salaries, wages, and incidental ex- penses, chargeable to freight depart- ment, . . . . .	36,200.35	
For gratuities and damages, . . . . .	746.67	
For taxes and insurance, . . . . .	11,895.00	
For ferries, . . . . .		
For repairs of station buildings, acque- ducts, fixtures, furniture, . . . . .	2,982.10	
For amount paid other companies, in tolls for passengers and freight carried on their roads, specifying each company, . . . . .	31,740.37	
For amount paid other companies, for the use of their roads, specifying each company, . . . . .		

For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items, . . . . .	36,156.29
Total expenditure for working the road, . . . . .	359,784.26
For interest, . . . . .	723.16
List of accidents to operatives and employees on the road, and the amount of damage, if any, paid to each case, naming each individual thus injured, . . . . .	360,507.42

## INCOME DURING THE YEAR.

*For Passengers :—*

On main road, including branches owned by Company, . . . . .	201,740.27
To and from other roads, specifying what, . . . . .	

*For Freight :—*

On main road and branches owned by Company, . . . . .	264,822.79
To and from connecting roads, . . . . .	
U. S. Mails, . . . . .	2,797.77
Rents and other receipts, . . . . .	1,371.56
Total income, . . . . .	470,732.39
Net earnings, after deducting expenses, . . . . .	

## DIVIDENDS.

per cent. total, . . . . .	
Surplus not divided, . . . . .	
Surplus last year, . . . . .	
Total surplus, . . . . .	

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ :

Roads and bridges, . . . . .	
Buildings, . . . . .	
Engines and cars, . . . . .	

This report does not include 122 miles in Conn. and R. I., which is run by the Trustees of the Hartford, Providence, and Fishkill R. R.

WM. M. PARKER, *General Superintendent.*



COMMONWEALTH OF MASSACHUSETTS,  
SUFFOLK, ss. BOSTON, FEB. 2, 1871.

Personally appeared, Wm. M. Parker, Superintendent of the Boston, Hartford, and Erie Railroad Company, and made oath that the within return by him subscribed, is true, according to his best knowledge and belief.

CHARLES P. CLARK,  
*Notary Public.*

## WATERTOWN AND WATERBURY RAILROAD.

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*Return of the Watertown and Waterbury Railroad, under the  
Act of 1853.*

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Capital Stock, . . . . .	\$118,200.00
Increase of capital since last Report,	
Capital paid in, per last Report, . . . . .	115,532.92
Capital paid in since last Report, . . . . .	
Total amount of capital stock paid in,	
Funded debt, per last Report, . . . . .	
Funded debt, paid since last Report, . . . . .	16,000.00
Funded debt, increase of, since last re- port, . . . . .	
Total present amount of funded debt,	
Floating debt, per last Report, . . . . .	1,000.00
Floating debt, paid since last Report,	
Floating debt, increase of, since last Re- port, . . . . .	
Total present amount of floating debt, . . . . .	1,000.00
Total present amount of funded and floating debt, . . . . .	17,000.00
Average rate of interest, per annum, paid during the year, . . . . .	7 per cent.

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry per last  
report, . . . . .

For graduation and masonry, paid during the past year, . . . . .	
Total amount expended for graduation and masonry, . . . . .	61,514.67
For wooden bridges, per last report, . . . . .	
For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	3,719.00
Total amount expended for iron bridges, (if any,) . . . . .	
For superstructure, including iron, per last report, . . . . .	
For superstructure, including iron, paid during the past year, . . . . .	
Total amount expended for superstructure, including iron, . . . . .	42,384.22
For stations, buildings, and fixtures, per last report, . . . . .	
For stations, buildings, and fixtures, paid during the past year, . . . . .	6,007.95
Total amount expended for stations, buildings, and fixtures, . . . . .	
For land, land-damages, and fences, per last report, . . . . .	
For land, land-damages, and fences, paid during the past year, . . . . .	13,784.91
Total amount expended for land, land damages, and fences, . . . . .	
For locomotives, per last report, . . . . .	
For locomotives, paid during the past year, . . . . .	
Total amount expended for locomotives, . . . . .	
For passenger and baggage cars, per last report, . . . . .	
For passenger and baggage cars, paid during the past year, . . . . .	
Total amount expended for passenger and baggage cars, . . . . .	
For merchandise cars, per last report, . . . . .	

For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchandise cars, . . . . .	
For engineering, per last report,	
For engineering, paid during the past year, . . . . .	
Total amount expended for engineering, . . . . .	2,218.01
For agencies, and other expenses, per last report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	818.58
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	\$130,733.17

## CHARACTERISTICS OF THE ROAD.

Length of road, . . . . .	4 $\frac{4}{10}$ miles.
Length of single main track, . . . . .	4 $\frac{4}{10}$ miles.
Length of double main track, . . . . .	
Length of branches owned by the company, stating whether they have a single or double track, . . . . .	
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	1100 feet.
Weight of rail, per yard, in main road, . . . . .	56 pounds.
Weight of rail, per yard, in branch roads, . . . . .	
Specify the different weights per yard, . . . . .	
Maximum grade, with its length, in main road, . . . . .	
Maximum grade, with its length, in branch roads, . . . . .	
Total rise and fall in main road, . . . . .	190 feet.
Total rise and fall in branch roads, . . . . .	
Shortest radius of curvature, with length of curve in main road, . . . . .	637 feet.



Shortest radius of curvature, with length of curve, in branch roads, .	
Total degrees of curvature, in main road, .	
Total degrees of curvature in branch roads, .	
Total length of straight line, in main road, .	
Total length of straight line, in branches, .	
Aggregate length of wooden truss bridges, .	123 feet.
Aggregate length of all other wooden bridges, . . . . .	500 feet.
Aggregate length of iron bridges, . . . . .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade, .	3
Number of railroads crossed at grade, . . . . .	
Remarks, . . . . .	
Way stations for express trains, . . . . .	
Way stations for accommodation trains, . . . . .	
Flag stations, . . . . .	
Whole number of way stations, . . . . .	
Whole number of flag stations, . . . . .	

[The road is leased to the Naugatuck Railroad Company, to be operated by them for a period of five years, for the receipts.]

Attest,

O. B. KING,  
*President, W. & W. R. R. Co.*

LITCHFIELD COUNTY, ss. }  
WATERTOWN, Jan. 25, 1871. }

Then personally appeared Owen B. King, President of the Watertown and Waterbury Railroad Company, and made solemn oath to the truth of the foregoing certificate, according to his best knowledge and belief.

E. M. SMITH,  
*Justice of the Peace.*

## CONNECTICUT VALLEY RAILROAD.

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*Return of the Connecticut Valley Railroad, under the Act of 1853.*

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Capital Stock, . . . . .	\$1,500,000.00
Increase of Capital, since last report,	
Capital paid in, per last report, . . . . .	
Capital paid in, since last report,	
Total amount of Capital Stock paid in,	789,250.82
Funded debt, per last report, . . . . .	
Funded debt, paid since last report,	
Funded debt, increase of, since last report, . . . . .	
Total present amount of funded debt,	
Floating debt, per last report,	
Floating debt, paid since last report,	
Floating debt, increase of, since last report, . . . . .	
Total present amount of floating debt,	194,752.09
Total present amount of funded and floating debt, . . . . .	
Average rate of interest, per annum, paid during the year, . . . . .	

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last report, . . . . .	
For graduation and masonry, paid during the past year, . . . . .	
Total amount expended for graduation and masonry, . . . . .	437,470.44

For wooden bridges, per last report,	
For wooden bridges, paid during the past year, . . . . .	
Total amount expended for wooden bridges, . . . . .	35,388.68
Total amount expended for iron bridg- es, (if any,) . . . . .	
For superstructure, including iron, per last report, . . . . .	
For superstructure, including iron, paid during the past year, . . . . .	
Total amount expended for super- structure, including iron and ties, . . . . .	215,405.18
For stations, buildings, and fixtures, per last report, . . . . .	
For stations, buildings, and fixtures, paid during the past year, . . . . .	
Total amount expended for stations, buildings, and fixtures, . . . . .	
For land, land-damages, and fences, per last report, . . . . .	
For land, land-damages, and fences, paid during the past year, . . . . .	
Total amount expended for land, land- damages, and fences, . . . . .	253,484.02
For locomotives, per last report, . . . . .	
For locomotives, paid during the past year, . . . . .	
Total am't expended for locomotives,	
For passenger and baggage cars, per last report, . . . . .	
For passenger and baggage cars, paid during the past year, . . . . .	
Total amount expended for passenger and baggage cars, . . . . .	
For merchandise cars, per last report,	
For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchan- dise cars, . . . . .	

For engineering, per last report,	
For engineering, paid during the past year,	
Total amount expended for engineering,	\$24,004.87
For agencies and other expenses, per last report,	
For agencies and other expenses, paid during the past year,	
Total amount expended for agencies and other expenses,	18,249.72
Total cost of road and equipments,	

## CHARACTERISTICS OF ROAD.

Length of road,	44 miles.
Length of single main track,	
Length of double main track,	
Length of branches owned by the company, stating whether they have a single or double track,	
Aggregate length of sidings, and other tracks, excepting main track and branches,	
Weight of rail, per yard, in main road,	
Weight of rail, per yard, in branch roads,	
Specify the different weights per yard,	
Maximum grade, with its length, in main road,	
Maximum grade, with its length, in branch roads,	
Total rise and fall in main road,	
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road,	
Shortest radius of curvature, with length of curve, in branch roads,	
Total degrees of curvature, in main road,	
Total degrees of curvature, in branch roads,	



Total length of straight line, in main  
 road, . . .  
 Total length of straight line, in  
 branches, . . .  
 Aggregate length of wooden truss  
 bridges, . . .  
 Aggregate length of all other wooden  
 bridges, . . .  
 Aggregate length of iron bridges,  
 Whole length of road unfinished on  
 both sides, . . .  
 Number of public ways crossed at  
 grade, . . .  
 Number of railroads crossed at grade,  
 Remarks, . . .  
 Way stations for express trains,  
 Way stations for accommodation  
 trains, . . .  
 Flag stations, . . .  
 Whole number of way stations,  
 Whole number of flag stations,

*(In process of construction.)*

J. C. WALKLEY, *President.*

STATE OF CONNECTICUT, }  
 COUNTY OF HARTFORD, ss. } Hartford, Jan. 27, 1871.

Subscribed and sworn to by J. C. Walkley, President, before me.

ZALMON A. STORRS,  
*Justice of the Peace.*

## CONNECTICUT WESTERN RAILROAD.

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*Return of the Connecticut Western Railroad, under the Act of 1853.*

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Capital Stock, . . . . .	\$1,650,000.00
Increase of Capital, since last report,	
Capital paid in, per last report,	
Capital paid in, since last report,	
Total amount of Capital Stock paid in, . . . . .	1,419,305.38
Funded debt, per last report,	
Funded debt, paid since last report,	
Funded debt, increase of, since last report, . . . . .	
Total present amount of funded debt, . . . . .	81,500.00
Floating debt, per last report,	
Floating debt, paid since last report, . . . . .	
Floating debt, increase of, since last report, . . . . .	
Total present amount of floating debt, . . . . .	
Total present amount of funded and floating debt, . . . . .	
Average rate of interest, per annum, paid during the year, . . . . .	

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last report, . . . . .	
For graduation and masonry, paid during the past year, . . . . .	

Total amount expended for graduation and masonry, . . . .	1,062,874.70
For wooden bridges, per last report,	
For wooden bridges, paid during the past year, . . . .	
Total amount expended for wooden bridges, . . . .	94,367.17
Total amount expended for iron bridges (if any), . . . .	
For superstructure, including iron, per last report, . . . .	
For superstructure, including iron, paid during the past year, . .	
Total amount expended for superstructure, including iron, . . . .	71,209.74
For stations, buildings, and fixtures, per last report, . . . .	
For stations, buildings, and fixtures, paid during the past year, . .	
Total amount expended for stations, buildings, and fixtures, . . . .	
For land, land-damages, and fences, per last report, . . . .	
For land, land-damages, and fences, paid during the past year, . .	
Total amount expended for land, land-damages, and fences, . . . .	277,854.10
For locomotives, per last report,	
For locomotives, paid during the past year, . . . .	
Total amount expended for locomotives, . . . .	
For passenger and baggage cars, per last report, . . . .	
For passenger and baggage cars, paid during the past year, . . . .	
Total amount expended for passenger and baggage cars, . . . .	
For merchandise cars, per last report, . . . .	

For merchandise cars, paid during the past year, . . . .	
Total amount expended for merchandise cars, . . . .	
For engineering, per last report,	
For engineering, paid during the past year, . . . .	
Total amount expended for engineering, . . . .	51,443.84
For agencies and other expenses, per last report, . . . .	
For agencies and other expenses, paid during the past year, . . . .	
Total amount expended for agencies and other expenses, . . . .	41,643.84
Total cost of road and equipments,	

## CHARACTERISTICS OF ROAD.

Length of road, . . . .	67 $\frac{5}{10}$ miles.
Length of single main track, . . . .	
Length of double main track, . . . .	
Length of branches owned by the company, stating whether they have a single or double track, . . . .	1 $\frac{7}{10}$ miles single track.
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . .	
Weight of rail, per yard, in main road, . . . .	
Weight of rail, per yard, in branch roads, . . . .	
Specify the different weights per yard, . . . .	
Maximum grade, with its length, in main road, . . . .	89 $\frac{7}{10}$ ft. per mile for 5 miles.
Maximum grade, with its length, in branch roads, . . . .	80 ft. per mile for $\frac{1}{4}$ mile.
Total rise and fall in main road, . . . .	1,039 ft. rise—1765 ft. fall.
Total rise and fall in branch roads, . . . .	21 ft. fall.
Shortest radius of curvature, with length of curve in main road, . . . .	573 feet, 220 feet long.



Shortest radius of curvature, with length of curve, in branch roads, . . . . .	480 feet, 962 feet long.
Total degrees of curvature, in main road, . . . . .	7045°
Total degrees of curvature in branch roads, . . . . .	362°
Total length of straight line, in main road, . . . . .	37½ miles.
Total length of straight line, in branches, . . . . .	¾ mile.
Aggregate length of wooden truss bridges, . . . . .	2344 feet.
Aggregate length of all other wooden bridges, . . . . .	6865 feet.
Aggregate length of iron bridges, . . . . .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade, . . . . .	57
Number of railroads crossed at grade, . . . . .	3
Remarks, . . . . .	
Way stations for express trains, . . . . .	
Way stations for accommodation trains, . . . . .	
Flag stations, . . . . .	
Whole number of way stations, . . . . .	
Whole number of flag stations, . . . . .	

*(In process of construction.)*

WM. H. BARNUM,  
*President, Conn. West. R. R. Co.*

STATE OF CONNECTICUT, }  
COUNTY OF LITCHFIELD, SS. } Winchester, Feb. 10, 1871.

Personally appeared Wm. H. Barnum, President, and made oath  
to the truth of the foregoing return, by him subscribed, according to  
his best knowledge and belief. Before me. WM. G. COE,

*Justice of the Peace.*

## RIDGEFIELD AND NEW YORK RAILROAD.

*Return of the Ridgefield and New York Railroad, under the Act  
of 1853.*

Capital Stock,	\$1,250,000.00
Increase of Capital, since last report,	
Capital paid in, per last report,	
Capital paid in, since last report,	114,000.00
Total amount of Capital Stock paid in,	114,000.00
Funded debt, per last report,	
Funded debt, paid since last report,	
Funded debt, increase of, since last re- port,	
Total present amount of funded debt,	
Floating debt, per last report,	
Floating debt, paid since last report,	
Floating debt, increase of, since last re- port,	
Total present amount of floating debt,	
Total present amount of funded and float- ing debt,	
Average rate of interest, per annum, paid during the year,	

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last report,	
For graduation and masonry, paid dur- ing the past year,	73,626.97
Total amount expended for graduation and masonry,	73,626.97
For wooden bridges, per last Report,	
For wooden bridges, paid during the past year,	

Total amount expended for wooden bridges, . . . . .		
Total amount expended for iron bridges, (if any,) . . . . .		
For superstructure, including iron, per last Report, . . . . .		
For superstructure, including iron, paid during the past year, . . . . .		
Total amount expended for superstructure, including iron, . . . . .		
For stations, buildings, and fixtures, per last Report, . . . . .		
For stations, buildings, and fixtures, paid during the past year, . . . . .		
Total amount expended for stations, buildings, and fixtures, . . . . .		
For land, land-damages, and fences per last Report, . . . . .		
For land, land-damages, and fences, paid during the past year, . . . . .	8,105.37	
Total amount expended for land, land-damages, and fences, . . . . .		8,105.37
For locomotives per last Report, . . . . .		
For locomotives paid during the past year, . . . . .		
Total amount expended for locomotives, . . . . .		
For passenger and baggage cars, per last Report, . . . . .		
For passenger and baggage cars, paid during the past year, . . . . .		
Total amount expended for passenger and baggage cars, . . . . .		
For merchandise cars, per last Report, . . . . .		
For merchandise cars, paid during the past year, . . . . .		
Total amount expended for merchandise cars, . . . . .		
For engineering, per last Report, . . . . .		
For engineering, paid during the past year, . . . . .	8,500.00	

Total amount expended for engineering,	8,500.00
For agencies, and other expenses, per last report,	
For agencies and other expenses, paid during the past year,	
Total amount expended for agencies and other expenses,	
Total cost of road and equipments,	

## CHARACTERISTICS OF ROAD.

Length of road,	
Length of single main track,	
Length of double main track,	
Length of branches owned by the company, stating whether they have a single or double track,	
Aggregate length of sidings, and other tracks, excepting main track and branches,	
Weight of rail, per yard, in main road,	
Weight of rail, per yard, in branch roads,	
Specify the different weights per yard,	
Maximum grade, with its length in main road,	$60\frac{19}{100}$ feet for 4,892 feet.
Maximum grade, with its length, in branch roads,	
Total rise and fall in main road,	$861\frac{30}{100}$ rise, $242\frac{7}{100}$ fall.
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road,	$5^{\circ}$ , 1146 feet, 1283 ft. long.
Shortest radius of curvature, with length of curve, in branch roads,	
Total degrees of curvature, in main road,	$1734^{\circ} 48' 30''$
Total degrees of curvature in branch roads,	
Total length of straight line in main road,	$12\frac{21}{100}$ miles.
Total length of straight line in branches,	
Aggregate length of wooden truss bridges,	



Aggregate length of all other wooden bridges, . . . . .	
Aggregate length of iron bridges,	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	13
Number of railroads crossed at grade,	
Remarks, . . . . .	
Way stations for express trains,	
Way stations for accommodation trains,	
Flag stations, . . . . .	
Whole number of way stations,	
Whole number of flag stations,	

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*(In process of construction.)*

STATE OF NEW YORK,  
WESTCHESTER COUNTY, ss.

Ephraim Sours, being duly sworn, doth depose and say that he is Secretary of the Ridgefield and New York Railroad Company, that the accompanying report is true, according to his best information, knowledge, and belief.

EPHRAIM SOURS.

Subscribed and sworn before me, this 23rd day of February, 1871.

JOHN E. MARSHALL,  
*Notary Public.*

# NEW HAVEN, MIDDLETOWN, AND WILLIMANTIC RAILROAD.

*Return of the New Haven, Middletown, and Willimantic Railroad,  
under the Act of 1853.*

Capital Stock, . . . . .	\$500,000.00
Increase of capital since last Report,	
Capital paid in, per last Report, .	
Capital paid in since last Report, .	
Total amount of capital stock paid in, . . . . .	500,000.00
Funded debt, per last Report, . . . . .	
Funded debt, paid since last Report, . . . . .	
Funded debt, increase of, since last report, . . . . .	3,600,000.00
Total present amount of funded debt,	
Floating debt, per last Report, . . . . .	
Floating debt, paid since last Report, . . . . .	
Floating debt, increase of, since last Report, . . . . .	
Total present amount of floating debt, . . . . .	1,068,918.70
Total present amount of funded and floating debt, . . . . .	4,700,918.70
Average rate of interest, per annum, paid during the year, . . . . .	

## COST OF ROAD AND EQUIPMENT.

For graduation and masonry per last report, . . . . .

For graduation and masonry, paid during the past year, . . .  
 Total amount expended for graduation and masonry, . . .  
 For wooden bridges, per last report,  
 For wooden bridges, paid during the past year, . . .  
 Total amount expended for wooden bridges, . . .  
 Total amount expended for iron bridges, (if any,) . . .  
 For superstructure, including iron, per last report, . . .  
 For superstructure, including iron, paid during the past year,  
 Total amount expended for superstructure, including iron, . . .  
 For stations, buildings, and fixtures, per last report, . . .  
 For stations, buildings, and fixtures, paid during the past year, . . .  
 Total amount expended for stations, buildings, and fixtures, . . .  
 For land, land-damages, and fences, per last report, . . .  
 For land, land-damages, and fences, paid during the past year, . . .  
 Total amount expended for land, land-damages, and fences, . . .  
 For locomotives, per last report,  
 For locomotives, paid during the past year, . . .  
 Total amount expended for locomotives,  
 For passenger and baggage cars, per last report, . . .  
 For passenger and baggage cars, paid during the past year, . . .  
 Total amount expended for passenger and baggage cars, . . .  
 For merchandise cars, per last report,

For merchandise cars, paid during the past year, . . . . .	
Total amount expended for merchan- dise cars, . . . . .	
For engineering, per last report,	
For engineering, paid during the past year, . . . . .	
Total amount expended for engi- neering, . . . . .	
For agencies and other expenses, per last Report, . . . . .	
For agencies and other expenses, paid during the past year, . . . . .	
Total amount expended for agencies and other expenses, . . . . .	
Total cost of road and equipments,	4,229,205.82

## CHARACTERISTICS OF ROAD.

Length of road now in operation,	22 miles.
Length of single main track, . . . . .	22 miles.
Length of double main track, . . . . .	
Length of branches owned by the company, stating whether they have a single or double track, . . . . .	
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	2,400 feet.
Weight of rail, per yard, in main road,	60 pounds.
Weight of rail, per yard, in branch roads, . . . . .	
Specify the different weights per yard,	
Maximum grade, with its length, in main road, . . . . .	1650 ft. long, 54.9 ft. per mile.
Maximum grade, with its length in branch roads, . . . . .	
Total rise and fall in main road,	rise 397 feet, fall 381 feet.
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road, . . . . .	radius 2820 feet, curve 595 feet long.



Shortest radius of curvature, with length of curve, in branch roads,	
Total degrees of curvature, in main rd.	342° 8'
Total degrees of curvature, in branch roads, . . . . .	
Total length of straight line, in main road, . . . . .	93,960 feet.
Total length of straight line in branches,	
Aggregate length of wooden truss bridges,	
Aggregate length of all other wooden bridges, . . . . .	
Aggregate length of iron bridges, .	653 feet.
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	17
Number of railroads crossed at grade,	
Remarks, . . . . .	
Way stations for express trains, .	
Way stations for accommodation trains,	4
Flag stations, . . . . .	2
Whole number of way stations, .	4
Whole number of flag stations, .	2

## DOINGS DURING THE YEAR.

Miles run by passenger trains, . . . .	
Miles run by freight trains, . . . .	
Miles run by other trains, . . . .	
Total miles run, . . . . .	17,550
Number of passengers carried in the cars,	
Number of passengers carried one mile,	27,041
Number of tons of merchandise carried in the cars, . . . . .	
Number of tons of merchandise carried one mile, . . . . .	
Number of passengers carried one mile, to and from other roads, . . . .	
Number of tons carried one mile to and from other roads, . . . . .	
Rate of speed adopted for express pas- senger trains, including stops, .	

Average rate of speed actually attained by express passenger trains, including stops and detentions, . . . . .	
Rate of speed adopted for accommodation trains, . . . . .	22 miles per hour.
Rate of speed actually attained by ac- commodation trains, including stops and detentions, . . . . .	22 miles per hour.
Average rate of speed adopted for freight trains, including stops and detentions,	
Estimated weight, in tons, of passenger cars (not including passengers) hauled one mile, . . . . .	
Estimated weight, in tons, of merchan- dise cars (not including freight) hauled one mile, . . . . .	

## EXPENDITURES FOR WORKING THE ROAD.

For repairs of road, maintenance of way, exclusive of wooden bridges, and renewals of iron, . . . . .	
Repairs of wooden bridges, . . . . .	
For renewals of iron, including laying down, . . . . .	
For wages of switchmen, average per month, . . . . .	} Total.
For wages of gate-keeper, average per month, . . . . .	
For wages of signal-men, average per month, . . . . .	
For wages of watchmen, average per month, . . . . . \$50	
Number of men employed, exclusive of those engaged in construction, . . . . .	25
For removing ice and snow, (this item to include all labor, tools repairs, and extra steam-power used,) . . . . .	
For repairs of fences, gates, houses for signal-men, gate-keepers, switchmen, tool houses, . . . . .	

Total for maintenance of way,	
Loss and damage of goods and baggage,	\$1.25
Damages for injuries to persons,	
Damages to property, including damages by fire, . . . . .	
Damages for cattle killed on road, .	

## MOTIVE POWER AND CARS.

For repairs of locomotives, .	
For new locomotives to cover depreciation, . . . . .	
For repairs on passenger cars, .	
For new passenger cars to cover depreciation . . . . .	
For repairs of merchandise cars,	
For new merchandise cars to cover depreciation, . . . . .	
For repairs of gravel and other cars,	
Total for maintenance of motive power and cars, . . . . .	
Number of engines, . . . . .	3
Number of passenger cars, . . . . .	4
Number of baggage cars, . . . . .	2
Number of merchandise cars, . . . . .	none.
Number of gravel cars, . . . . .	22

## MISCELLANEOUS.

List of accidents to persons,	
List of accidents to cattle and the amount paid for each, . . . . .	
For fuel used by engines during the year, viz :—	
Wood, . . . . .	
Coal, . . . . .	
For oil used by cars and engines,	
For waste and other material for cleaning, . . . . .	
For salaries, wages, and incidental expenses, chargeable to passenger department, . . . . .	

For salaries, wages, and incidental ex-  
 penses, chargeable to freight depart-  
 ment, . . . . .  
 For gratuities and damages, . . . . .  
 For taxes and insurance, . . . . .  
 For ferries, . . . . .  
 For repairs of station buildings, acque-  
 ducts, fixtures, furniture, . . . . .  
 For interest, . . . . .  
 For amount paid other companies, in tolls  
 for passengers and freight carried on  
 their roads, specifying each company,  
 For amount paid other companies, for  
 the use of their roads, specifying each  
 company, . . . . .  
 For salaries of president, treasurer, su-  
 perintendent, law expenses, office ex-  
 penses of the above officers, and all  
 other expenses not included in any of  
 the foregoing items, . . . . .  
 Total expenditure for working the road,  
 List of accidents to operatives and em-  
 ployees on the road, and the amount  
 of damage, if any, paid to each case,  
 naming each individual thus injured,

## INCOME DURING THE YEAR.

*For Passengers:—*

On main road, including branches owned  
 by Company, . . . . .  
 To and from other roads, specifying  
 what, . . . . .

*For Freight:—*

On main road and branches owned by  
 Company, . . . . .  
 To and from connecting roads,  
 United States Mails, . . . . .  
 Rents, . . . . .



Total income,      .      .      .  
 Net earnings, after deducting expenses,

DIVIDENDS.

per cent. total,  
 Surplus not divided,  
 Surplus last year,  
 Total surplus,

ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ :

Road and bridges,      .      .      .      .  
 Buildings,      .      .      .      .  
 Engines and cars,      .      .      .      .

## SHEPAUG VALLEY RAILROAD.

*Return of the Shepaug Valley Railroad, under Act of 1853.*

Capital Stock, by charter, . . . . .	\$1,000,000.00
Increase of Capital since last Report,	
Capital paid in, per last Report, . . . . .	
Capital paid in, since last Report,	
Total amount of Capital Stock paid in,	160,770.00
Funded debt, per last Report, . . . . .	
Funded debt, paid since last Report,	
Funded debt, increase of, since last Re-	
port, . . . . .	
Total present amount of funded debt,	
Floating debt, per last Report, . . . . .	
Floating debt, paid since last Report,	
Floating debt, increase of, since last Re-	
port, . . . . .	
Total present amount of Floating debt,	
Total present amount of Funded and	
Floating debt, . . . . .	
Average rate of interest, per annum, paid	
during the year, . . . . .	

### COST OF ROAD AND EQUIPMENT.

For graduation and masonry, per last report,	.	.	.	.
For graduation and masonry, paid during the past year,	.	.	.	.
Total amount expended for graduation and masonry,	.	.	.	.
For wooden bridges, per last Report,				

For wooden bridges, paid during the past year, . . . . .	.
Total amount expended for wooden bridges, . . . . .	.
Total amount expended for iron bridges, (if any,) . . . . .	.
For superstructure, including iron, per last Report, . . . . .	.
For superstructure, including iron, paid during the past year, . . . . .	.
Total amount expended for superstruc- ture, including iron, . . . . .	.
For stations, buildings, and fixtures per last Report, . . . . .	.
For stations, buildings, and fixtures paid during the past year, . . . . .	.
Total amount expended for stations, buildings, and fixtures, . . . . .	.
For land, land damages, and fences, per last Report, . . . . .	.
For land, land damages, and fences, paid during the past year, . . . . .	.
Total amount expended for land, land- damages, and fences, . . . . .	.
For locomotives, per last Report, . . . . .	.
For locomotives paid during the past year, . . . . .	.
Total amount expended for locomotives, . . . . .	.
For passenger and baggage cars, per last Report, . . . . .	.
For passenger and baggage cars, paid during the past year, . . . . .	.
Total amount expended for passenger and baggage cars, . . . . .	.
For merchandise cars, per last Report, . . . . .	.
For merchandise cars, paid during the past year, . . . . .	.
Total amount expended for merchan- dise cars, . . . . .	.
For engineering, per last report, . . . . .	.

For engineering, paid during the past  
 year, . . . . .  
 Total amount expended for engineer-  
 ing, . . . . .  
 For agencies and other expenses, per  
 last report, . . . . .  
 For agencies and other expenses, paid  
 during the past year, . . . . .  
 Total amount expended for agencies  
 and other expenses, . . . . .  
 Total cost of road and equipments,

## CHARACTERISTICS OF ROAD.

Length of road, . . . . .	32 $\frac{1}{10}$ miles.
Length of single main track, . . . . .	
Length of double main track, . . . . .	
Length of branches owned by the com- pany, stating whether they have a sin- gle or double track, . . . . .	
Aggregate length of sidings, and other tracks, excepting main track and branches, . . . . .	
Weight of rail, per yard, in main road,	
Weight of rail, per yard, in branch roads,	
Specify the different weights per yard,	
Maximum grade, with its length, in main road, . . . . .	
Maximum grade, with its length, in branch roads, . . . . .	
Total rise and fall in main road,	860
Total rise and fall in branch roads,	
Shortest radius of curvature, with length of curve, in main road,	500
Shortest radius of curvature, with length of curve, in branch roads, . . . . .	
Total degrees of curvature, in main road,	
Total degrees of curvature, in branch roads, . . . . .	
Total length of straight line, in main road, . . . . .	17 $\frac{7}{10}$ $\frac{2}{10}$ miles.



Total length of straight line, in branches,	
Aggregate length of wooden truss bridges, . . . . .	
Aggregate length of all other wooden bridges, . . . . .	
Aggregate length of iron bridges, .	
Whole length of road unfinished on both sides, . . . . .	
Number of public ways crossed at grade,	32
Number of railroads crossed at grade,	1
Remarks, . . . . .	
Way stations for express trains, .	
Way stations for accommodation trains,	
Flag stations, . . . . .	
Whole number of way stations, .	
Whole number of flag stations, .	

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*In process of construction.*

J. DEMING PERKINS,  
*President.*

LITCHFIELD COUNTY, SS. LITCHFIELD.

Personally appeared, J. Deming Perkins, President, and made oath that the above statement is correct, to the best of his knowledge and belief. Before me,

GEO. M. WOODRUFF,  
*Notary Public.*





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L A W S

<sup>s</sup> RELATING TO

RAILROADS.

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# LAWS RELATING TO RAILROADS.

## OF RAILROADS OPERATED BY STEAM.

SECT. 443. All railroad companies that have 1849. 1862.  
been, or shall be, incorporated under the authority Railroad compa-  
of this state, except railroad companies, which nies to be gov-  
transport passengers, or freight, on their roads by erned by the pro-  
animal power alone, shall have all the powers and visions of this  
privileges, and be subjected to all the duties, liabil- act, except, &c  
ities, and other provisions, contained in the one  
hundred and three succeeding sections of this act,  
respecting such companies, except when otherwise  
specially provided in their charters.

SECT. 444. The immediate government, and Organization of  
directions of the affairs, of every such company, the company offi-  
shall be vested in a board of not less than nine cers, &c.  
directors, who shall be annually chosen by the com-  
pany, in the manner hereinafter provided, and shall  
hold their offices until others shall be duly elected  
in their places; and the said directors shall elect  
one of their own number president of the board,  
who shall also be president of the company, and  
they may also choose a clerk, or secretary, who shall  
also be clerk and secretary of the company, and  
who shall be sworn to a faithful discharge of his  
duty, and a treasurer, who shall give bonds to the  
company in such sums as shall be required by the  
by-laws, for the faithful discharge of his trust.

SECT. 445. No person, who is president, or vice- 1853.  
president, of any railroad company, situated wholly President or vice  
without this state, having a corporate existence, president of com-  
and a board of officers, distinct from, and uncon- pny out of state  
nected with, any railroad situated in and incor- not eligible to  
porated by the laws of this state, shall be eligible to, similar office in  
or hold the office of, president or vice-president of this state.  
any railroad company, situated in whole or in part

in this state, and incorporated in whole or in part by the laws thereof.

Supervision over  
management of  
road.

SECT. 446. The president and directors of every railroad company shall maintain, by its president or vice president, or by an executive committee of the directors, a watchful supervision over the management of its road.

1849.

Meetings, how  
called.

SECT. 447. All meetings of the company shall be called and notified in such manner as shall be provided in the by-laws, and at such meetings each member shall be entitled to one vote for each share held by him.

1852.

Proxy voting  
regulated.

SEC. 448. No person shall be entitled to vote, at any meeting of the stockholders in any railroad company, by virtue of any proxy or power of attorney, unless the same shall have been executed within twelve months immediately preceding such meeting; and no such proxy, or power of attorney, shall be used at more than one annual meeting of said stockholders.

1858.

President, &c.,  
of railroad com-  
pany not to vote  
on stock of other  
person.

SECT. 449. Every railroad company in this state, at a meeting of its stockholders, may prohibit its officers from voting, in the election of directors for such company, upon any other stock than their own; and no officer of such company shall request, or solicit, any stockholder to execute a power of attorney to any person whatever, to vote upon the stock of such railroad company; and no person shall be allowed to vote by virtue of a power so obtained; and any person who shall violate the provisions of this section, shall be disqualified from holding any office in said railroad company, for the term of one year thereafter.

Penalty.

1864.

Railroad con-  
tractors, or stock-  
holders, may not  
vote on stock,  
when.

SECT. 450. No railroad contractor or stockholder, in any railroad company shall be allowed to vote on any stock subscribed for by him, to be paid in work or materials, unless he shall have paid in full, in the manner agreed, all assessments or installments, legally called by such company, on said stock.

Subscribers may  
not vote on stock  
unless assess-  
ments, &c., are  
paid in full.

SEC. 451. No subscriber to the capital stock of any railroad company shall be allowed to vote on any of said stock, unless all assessments or installments, legally called by such company, shall have been paid in full.

1849.

Shares of stock  
to be personal es-

SECT. 452. The shares in the capital stock of any railroad company shall be deemed personal



estate, and may be transferred by any conveyance in writing, registered either by the treasurer in books to be kept in his office, or by the secretary, clerk, or other officer duly authorized by the directors, in books to be kept at such other place as they may appoint; and no conveyance of any such shares shall be valid against any other person than the grantor or his representatives, unless so registered.

SEC. 453. The president and directors of every railroad company may, from time to time, make such equal assessment, on all the shares in said company, as they may deem expedient and necessary for the purposes of the company, and may direct the same to be paid to the treasurer in such manner, and with such notice, as may be prescribed by the by-laws of said company; and if any stockholder shall neglect to pay his assessment, for the space of thirty days, after notice from the treasurer, the directors may order the treasurer, after giving notice of the sale, to sell such shares, at public auction, to the highest bidder, and the same shall accordingly be transferred to the purchaser; and if the shares of any delinquent stockholder shall not sell for a sum sufficient to pay his assessment, with interest and charges of sale, he shall be liable to the company for any deficiency; and if any such shares shall sell for more than the assessment so due, with interest and charges of sale, he shall be entitled to the surplus remaining after such sale; but no assessment shall be laid upon any shares in such company, to a greater amount than the sum at which the shares shall be fixed by the charter of such company.\*

SEC. 454. There shall be three persons appointed by the general assembly, to be styled railroad commissioners, each of whom shall hold his office for three years, and until his successor is appointed and qualified, except when he shall be appointed to fill a vacancy, and the appointment shall be so arranged that one vacancy shall occur, and one new appointment shall be made every year, but any person going out of office may be reappointed; and the governor may fill all vacancies that may occur during the recess of the general assembly, and the com-

tate; how transferable.

Assessments on shares, how made and collected.

1853. 1865.  
Railroad commissioners, how appointed, their terms of office, and who shall not be commissioners.

\* Where no by-law prescribes mode of notice of assessment, directors may prescribe. *Danbury and Norwalk Railroad Co. v. Wilson*, 22 C. R. 435.



missioner or commissioners, appointed by him, shall hold office until the next session of the general assembly; but no person, being at the time a director, superintendent, or stockholder, of any railroad company in this state, shall be appointed as such commissioner, and whenever any such commissioner shall be, directly, or indirectly, in any way, employed by any railroad company in this state, his office shall become vacant.

1858.  
To take oath.

SECT. 455. Before entering on the duties of their office, the railroad commissioners shall make oath, that they will faithfully and impartially discharge all the duties incumbent upon them, in their said office, agreeably to the constitution and laws, and according to their best abilities and understanding; a certified copy of which oath they shall, within thirty days thereafter, cause to be filed in the office of the secretary of this state.

Record of complaints, &c. to be kept by commissioners.

SECT. 456. The railroad commissioners shall make and keep a record of all complaints, or other papers, addressed to them officially, and of all their official acts and proceedings, and of all facts learned in relation to any casualty, and the names of the persons from whom derived, or by whom they may be proved; and they may, on special occasions, employ experts, or other agents, whose services they may deem to be temporally of importance.

May employ experts.

To pass free on railroads when on duty.

SECT. 457. The railroad commissioners shall have the right of passing, free of charge, in the performance of their duties, on all the railroads in the state, and to take with them any person in their official employment.

1862.  
Fees, and by whom paid.

SECT. 458. The railroad commissioners shall be entitled to charge and receive for their services, at the rate of three dollars a day for the time actually employed, and all reasonable expenses, for the examinations of the several railroads in this state, provided in the four hundred and sixty-second section of this act, which shall be apportioned among the several railroad companies in this state, in proportion to the length of the main track, or tracks, of the respective railroads in operation within the limits of this state.

*In addition, July 19th, 1867.*

SECT. 1. That section four hundred and fifty-eight

of the Act concerning Communities and Corporations, be, and the same is hereby amended so that the compensation of the railroad commissioners shall be five dollars per day for the time actually expended in the performance of their duties, instead of three dollars per day, as is now provided in said section. And that a thorough examination of the condition of the track, road-bed, bridges and masonry of each of the railroads in this state may be made; it shall be, and is hereby made the duty of the railroad commissioners in each examination of the several railroads by them made to pass over the same at a rate of speed not exceeding six miles per hour, and to stop at each culvert, bridge and piling, and make a personal examination of the same; and they shall examine the rails and ties at some point in each and every mile, and shall make such rules, and order such repairs as, upon such examination, they shall deem the public good demands.

Compensation  
railroad com-  
missioners.

Examination of  
railroads, how  
made.

SECT. 2. The said railroad commissioners are hereby empowered, and it shall be their duty to make such rules and regulations in regard to the platforms and all out-buildings at the several railroad stations and depots in this state as shall, in their judgment, be expedient and for the interest of the public.

Platform and  
out-buildings at  
depots.

SECT. 3. All acts and parts of acts inconsistent herewith are hereby repealed.

Repeal.

SECT. 459. Whenever, in the opinion of the railroad commissioners, special services are required and rendered to any railroad company, or whenever any special services are requested by it, the fees and expenses of the commissioners for such special services, after being audited and allowed as herein-after provided, shall be paid by the company, or companies, for whose special or particular benefit the services were rendered.

Special services  
of commissioners  
to be paid by the  
corporation re-  
quiring them.

SECT. 460. The railroad commissioners shall, in the month of July, annually, present to the secretary, treasurer, and comptroller of public accounts, their respective accounts, in detail, of their fees and expenses as such commissioners, for the year preceding the fourth day of July in each year, distinguishing the services and expenses for the general examination, from the special services and expenses as provided in the preceding section, which ac-

Accounts of rail-  
road commis-  
sioners, how au-  
dited and appor-  
tioned.



counts shall be verified, supported, and proved, by their oath; and the secretary, treasurer, and comptroller, shall examine and audit such accounts, and when said accounts are audited and allowed by them, the comptroller shall apportion the sums so allowed to be paid by the several companies; and the rule of apportionment shall be, to divide the fees and expenses of the general examinations among the several companies, in proportion to the length of the main track, or tracks, of the respective railroads within the limits of this state; and the fees or expenses, incurred for any one or more companies, shall be assessed to and upon the particular company for whose benefit, or at whose request, the same accrued; and each company, and the trustees, assignees, lessees, or other parties, operating any road, shall pay the railroad commissioners their proportion of the general account, and also the amount assessed and charged against it for special services and expenses.

No compensation for services, before the audit of their accounts.

SECT. 461. No railroad commissioner shall ask, demand, or receive, from any railroad company, any money or other compensation whatever, for services rendered or expenses incurred in his official capacity, until the account for such services and expenses are audited and allowed, as provided in the next preceding section.

1850.  
1856. 1862.  
Shall examine railroads twice a year, and at other times, when.

SECT. 462. The railroad commissioners shall, at least twice in each year, examine the several railroads in this state, and make a like examination of any railroad within the limits of any town, when thereto requested, in writing, by the selectmen of such town, and shall see that the same are kept in suitable repair, and that the railroad companies faithfully comply with the laws of this state, and the provisions of their several charters; and said commissioners shall cause such portions of the laws, as relate to the duty of railroad companies, and the offenses against railroads, as they may deem proper, to be published and posted up in some conspicuous place in every railroad depot, and at such other places as they shall direct.

1853.  
Commissioners to visit and inspect railroads, &c.

SECT. 463. The railroad commissioners, or any two of them, may, as often as they may deem expedient, and at their discretion, or upon complaint, in writing, under oath, of any person alleging any particular in which the conduct of any railroad

company, or its agents, is inconsistent with the public safety ; and shall, upon complaint made, in writing, by any number of stockholders, or creditors, not less than five, assigning, in good faith, sufficient reason therefor, visit and inspect the railroad of such company, in this state, its rails, switches, road crossings, buildings, stations, works, bridges, and the engines and cars belonging thereto, and shall investigate the condition of such railroad, and examine its by-laws and regulations, and the conduct of its officers and agents, and make any and all other inquiries, needful to determine whether the affairs of such company are managed conformably to law, and with public safety and convenience.

SECT. 464. Whenever the railroad commissioners intend to examine the road of any railroad company, they shall give notice thereof, in writing, to such company, and of the time of their proposed examination ; and if, upon such examination, a majority of said commissioners shall be of opinion that, safety to public travel, or to the lives of the persons operating said road, require said railroad in any respect to be repaired, they shall forthwith, in writing, notify said company thereof, and order and direct said company to make the repairs required, within some reasonable time, to be by them limited for that purpose.

Commissioners to give notice of intention to examine road, and may order repairs.

SECT. 465. Any railroad company, which shall neglect or refuse to make the repairs ordered by the railroad commissioners within the time limited by them, shall forfeit to the treasurer of the state one hundred dollars for each day, beyond the time so limited, until said repairs are completed to the acceptance of said commissioners.

Penalty for neglect to make repairs.

SECT. 466. The railroad commissioners may, from time to time, make orders prescribing the length of time for which the ticket office, at any railroad station, shall be kept open for the sale of tickets, previous to the departure of each passenger train from such station ; and upon receiving the written complaint of any person, alleging that any such ticket office is not so kept open long enough reasonably to accommodate the public, the commissioners shall inquire into such complaint without unnecessary delay, and, if they find the same to be true, they shall make a proper order for the correction of the evil mentioned in such complaint ; and no

1865.  
May order how long ticket office shall be kept open.



railroad company, while neglecting to obey any such order, shall demand or receive more than the regular ticket price for the fare of any passenger, upon any of its trains, who may omit to procure a ticket before entering such train.

May direct how railroad companies shall manage their trains, &c., at highway crossings.

SECT. 467. For the purpose of preventing annoyance to the public through the obstruction of highway crossings, at or near railroad stations, by cars standing upon said crossings, or moving to and fro across the same, the railroad commissioners may, from time to time, make orders regulating the manner in which railroad companies shall manage their trains, engines, and cars at such places ; and upon receiving the written complaint of any person, alleging that any railroad company is in the habit of annoying the public, in manner aforesaid, at any such place specified in said complaint, the commissioners shall, without unnecessary delay, inquire into said complaint, and if they find the same to be true, they shall make a proper order for the evil specified in such complaint.

*In addition, June 30th, 1866.*

Railroad freight trains not to obstruct ordinary travel on highways.

SECT. 1. That whenever it shall be necessary for any freight train on any railroad in this state to remain at any station for the purpose of receiving or delivering freight or for any other ordinary purpose, in such a position as to obstruct the ordinary travel on any public highway for a period of time exceeding five minutes, it shall be the duty of the person having charge of such freight train to cause the same to be separated in such a manner as to accommodate the public travel on such public highway ; and any railroad company in this state in whose employment any person shall be who shall be guilty of a violation of this act, shall forfeit and pay a sum not exceeding ten dollars, to be recovered by an action on this statute to any person who shall sue therefor and prosecute his suit to effect.

Repeal.

SECT. 2. All acts and parts of acts inconsistent herewith are hereby repealed.

May compel railroad companies to furnish comfortable seats.

SECT. 468. The railroad commissioners, from time to time, shall make such orders as they may deem necessary, for the purpose of compelling railroad companies to furnish comfortable seats to all

passengers upon their trains. The orders, provided in this and the two next preceding sections, shall be made by the commissioners, and served in the manner prescribed, in the next succeeding section of this act.

Orders, how enforced.

SECT. 469. The railroad commissioners shall advise, and recommend, to any railroad company to make such repairs upon its road, or upon any railroad bridge, or other property belonging to such company, as they shall deem necessary to the public safety, and to the safety of the operatives on said road ; they shall recommend the adoption of additional signals, and other precautions, to prevent accidents, than those in use, and the employment of other and additional switchmen and signal-men, the application of safety beams to the cars, stated examination of their wheels, axles, brakes, &c., having a due regard to the character and income of the road, also the number of brakemen that shall be placed, and kept, upon the trains of any road, and in what proportion to the number of cars connected with its trains ; and if they shall deem necessary to the public safety, they shall recommend that express and other trains, run at high speed, and on dangerous roads, shall have a lookout upon the engine, distinct from the engine-man, and the conductor, who shall, at the approach of danger, sound the whistle, which shall be affixed to the engine in close proximity to his seat, and which shall be so constructed that the sound cannot be mistaken for that of the engineer, on the alarm of which every brakeman shall immediately put on the brakes and stop the train ; they shall advise as to the rate of speed of the trains upon any road, or upon descending grades, at dangerous crossings, or upon other portions of the same, if, in their judgment, the rate adopted by the directors of such road, or run upon the same shall be greater than is consistent with the public safety ; they shall direct that suitable warning-boards are put up at such crossings as are dangerous, and signal-men stationed, or gates erected, at such as are extra-hazardous ; or, if they shall deem proper, they shall direct that the engineer's whistle be blown continually, from a point eighty rods from any crossing, until the train has passed the same ; and that such warning-boards shall be placed over the

1853.

Commissioners to advise repairs the adoption of signals, rate of speed, &c.



Directions, &c.,  
how given.

track, at the switches and near the station, or in other places, warning people against walking upon the track, on penalty of the law, as they may deem necessary and proper. All directions, advice, and recommendations, given and made by said commissioners, pursuant to the powers given in this section, shall be in writing, under the hands of said commissioners or any two of them, served by copy upon the secretary of the company, by some indifferent person, and returned to the commissioners, with an endorsement of service attested, sworn to, and the administration of the oath certified thereon, and shall be preserved by them, as is herein before provided; and the commissioners shall report any neglect to adopt any recommendation, or advice, made as aforesaid, to the next general assembly.

1853  
When commis-  
sioners may ap-  
ply for injunction  
against corpora-  
tions, &c.

SECT. 470. If, upon examination of any railroad, or its management, or the affairs of any railroad company, a majority of the railroad commissioners, shall be of opinion that its rails, bridges, switches, engines, or cars, are in such condition, or that its affairs are so conducted, as to endanger the safety of the public, or that said company has, in any material respect, violated the law, or refused to obey the directions of said commissioners, or of any judge of the superior court, made under, and pursuant to, the powers given in this act, or has suffered any person to hold or exercise the duties of any office in said company, contrary to the provisions of this act, said commissioners, or a majority of them may make application to any judge of the superior court for an injunction to restrain such company, in whole or in part, from further proceeding with its business, and to restrain such persons from holding or exercising, or attempting to hold or exercise, the duties of such office, until a hearing can be had in the premises; and said judge may issue such process, and may, at his discretion, dissolve or modify said injunction, or make the same perpetual, and make such orders and decrees to suspend, restrain, or prohibit, the further proceedings of such company in its business, or such person in relation to such office, as in his judgment the public safety or the law may require, under such penalties as such judge may deem necessary and proper.

1856.  
Directors to

SECT. 471. The directors of every railroad com-

pany shall, annually, on or before the first day of February, make report, under oath, to the railroad commissioners, of their acts and doings, and receipts and expenditures, under the provisions of its charter; and every such company, whose directors shall neglect or refuse to make such reports, shall forfeit to the treasurer of the state the sum of twenty-five dollars, for each day of such neglect or refusal, if said commissioners shall report the same to such treasurer, who shall collect the same by due process of law; and the books of every such company shall, at all times, be open to the inspection of any committee of the general assembly, appointed for that purpose.

SECT. 472. The railroad commissioners shall annually, call for accurate and full returns and statistics from each railroad company, under the oath of the president thereof, in accordance with the blanks or forms hereafter appended, marked A, which blanks shall be furnished, in duplicate to each railroad company in this state; and they may summon and examine, under oath, all directors, officers, or agents, of said companies, and such other witnesses as they may think proper, in relation to the affairs, transactions, and condition of said companies; and said directors, officers, agents, or other persons, who shall refuse, without justifiable cause, to appear and testify when thereto required, as aforesaid, or who shall in any way obstruct any railroad commissioner in the discharge of his duty as prescribed in this act, shall be punished by a fine not exceeding one thousand dollars, or by imprisonment for a term not exceeding one year.

SECT. 473. The railroad commissioners shall make a report of the general conduct and condition of all the railroads, within the state, to each general assembly, in the first week of its session, making such suggestions for legislation, as the public interest shall seem to them to require; and in case any violation of law, on the part of any railroad company, shall come to the knowledge of said commissioners, they shall in like manner make report thereof.

SECT. 474. Every railroad company may lay out its road, not exceeding six rods wide, and for the purpose of cuttings, embankments, and procuring

make annual report to the commissioners.

1853.

To call for returns from the companies, and to have power to examine officers, &c., under oath.

Report to general assembly.

1849.

Of width of road, and of obtaining materials for its construction.



Company may  
take land, on  
payment of ap-  
praisement.

Commissioners  
shall prescribe  
limits, &c.

Proce-dings to  
take land for rail-  
road, how insti-  
tuted, notice how  
given and ap-  
praisements how  
made.

stone and gravel, and for necessary turnouts, may take as much more land, within the limits of its charter, in the manner provided in this act, as may be necessary for the proper construction and security of the road; and if it shall not be able to obtain land for the purposes aforesaid, by an agreement with the owners thereof, it shall pay therefor such damages, as shall be estimated and determined by appraisers, to be appointed by a judge of the superior court in the manner hereinafter provided; and no land, without the limits of said road, shall be so taken, without the permission of the owner thereof, unless the railroad commissioners, on application of such company, and after notice to the said owner, shall first prescribe the limits within which land shall be taken for the purposes aforesaid; and no railroad company shall lay out, and finally locate its road, without the written approbation of the location by a majority of said commissioners, except so far forth as the location is definitely fixed in the act of incorporation.

SECT. 475. Whenever any railroad company intends to take land for the purpose of laying out, making and maintaining its railroad, such company may, before such land is actually taken and appropriated for such purpose, apply to any judge of the superior court for the appointment of appraisers, to estimate the damages that shall be occasioned by such laying out, making and maintaining such road; and after reasonable notice of the intended application shall have been given to the owner of said land, such judge shall appoint three appraisers, who shall estimate such damages, but shall not include in such estimate the cost, or expense, of erecting and maintaining fences along the line of such railroad; and they shall return an appraisement of such damages, in writing, under their hands, to the clerk of the superior court in the county where the land lies, who shall record it, and when so returned and recorded, such appraisement shall have the effect of a judgment, and execution may issue, at the end of sixty days from the time of such return, in favor of the persons respectively to whom damages may be appraised; and said appraisers shall be paid by said company, for the time actually spent in making such appraisement and return; but no railroad shall be worked upon,

Railroad not to

or opened across the lands of any person, until the damages appraised to such person shall have been paid, or secured to be paid to his satisfaction, or deposited with the treasurer of the county for his use.\*

be worked until  
damages have  
been paid.

SECT. 476. Whenever any railroad shall have been laid out by any railroad company, and the damages occasioned, or to be occasioned, by the laying out, making, and maintaining said road, shall have been appraised in favor of the owners of land over which such railroad is laid; and such road, or any part or branch thereof, shall have been abandoned or discontinued before the same shall have been opened and worked, no action shall be brought against said company for the recovery of such appraisement, by any of the owners of land over which such road, or part of a road, shall have been laid out and discontinued as aforesaid; but any such land owner may recover of such company the actual damage which he may have suffered in consequence of the laying out of such road, or from any unreasonable delay in opening and working the same, by an action founded on this statute.

1858.  
Railroad com-  
pany not liable  
for damages to  
land owners,  
where road is  
discontinued.

Land owner may  
recover actual  
damages.

SECT. 477. Whenever any railroad company shall, by virtue of its charter, take any land, or other property, for the purpose of its railroad, the owner of such land or other property may, at any time within three years from the time of taking the same, demand in writing of the treasurer, or principal agent of the company, a written plan or description of the land or other property so taken; and said company shall, within thirty days from the time of such demand, deliver to him such description or plan, and all the rights of said company to enter upon or use said land or other property, except for making surveys, shall be suspended until it shall have so delivered such description or plan, within a reasonable time after such demand shall have been made.

1849.  
Owners of land  
may, within  
three years, re-  
quire a plan of  
land taken.

SECT. 478. Within ninety days after the railroad of any company shall have been laid out by the company, and approved by the railroad commissioners, and the width of land designated and settled through any town, such company shall deposit,

Corporation to  
deposit plan of  
road with town  
clerk.

\* Owner of fee of highway, on which a railroad is located, entitled to damages. *Imlay v. Union Branch R. R. Co.*, 26 C. R. 249.

Incidental injury to adjacent land of same proprietor to be considered. *Same*.



with the town clerk, a correct plan, signed by the president of said company, of so much of said railroad as lies in said town, drawn upon a scale of at least five inches to the mile, upon which shall be accurately delineated the direction and length of each course, and the width of the land therein taken for the purposes of said road, together with such explanations as may be necessary to make the same intelligible and useful.

Location of road to be filed in secretary's office.

SECT. 479. Every railroad company shall, within six months after the final location of its road, file a statement of such location, defining the courses and distances, with the secretary of this state.

*In addition, July 19th, 1867.*

Railroad companies to procure the right of way within twelve months after the acceptance of the survey.

SECT. 1. When the survey of any railroad company shall have been accepted by the railroad commissioners, said company shall procure and pay for the right of way of all lands through which they may pass, within twelve months, or make satisfactory arrangements with the parties owning said lands, or said acceptance by said commissioners shall be void.

Railroads to be fenced within twelve months after they take possession of the lands.

SECT. 2. All railroad companies shall cause their road to be fenced within twelve months after they enter upon and take possession of the lands through which they pass.

Railroads may cross other roads or water courses.

SECT. 480. Whenever it shall be necessary for the construction of a railroad, to intersect or cross any stream of water or water course not navigable, or any public road, highway or street, the railroad company may construct said railroad across or upon the same, if the railroad commissioners shall adjudge it necessary, but said company shall restore the said stream, or water course, or road, or highway, or street thus intersected to its former state, or in sufficient manner not to impair its usefulness; and in case any road, highway, or street is so located that said railroad cannot be judiciously laid out and constructed across or upon the same, without interfering therewith, said company may, by and with the advice and consent of the said commissioners, cause such road, highway, or street to be changed or altered in such manner, that said railroad may be made on the best site of ground for that pur-

pose ; but said company shall put such road in as good repair as it was previous to such alteration, under the direction of said commissioners, whose determination thereon shall be filed.\*

SECT. 481. Every railroad company, which may locate and construct a railroad across any turnpike, highway, or public street, shall construct it so as to cross over or under the said turnpike, highway, or street; and for this purpose it may, under the direction of the railroad commissioners, raise or lower said turnpike, highway, or street, at the said crossing, or change the location thereof, and shall make, keep up and maintain such bridges, abutments, tunnels, arches, excavations, embankments and approaches, as the convenience and safety of the public travel upon said turnpike, highway, or street, may require; but the railroad commissioners may, upon due notice to said company, and to the selectmen of the town, or mayor of the city, in which said crossing is situated, authorize and direct such company to construct its railroad at such crossing upon a level with the turnpike, highway, or street; and, if they deem it necessary, may require the said company to erect and maintain a gate across the railroad at such crossing, and to provide an agent, to open and close the same.

May change location or alter level of roads, intersected, under direction of the commissioners.

To maintain gates.

*In addition, June 30th, 1866.*

SECT. 1. That whenever any public highway or any portion thereof, has been or shall be taken by any railroad company for railroad purposes, or when such highway has been determined and adjudged by a committee of three disinterested and judicious persons, or a majority of them, appointed by the superior court in the county in which such road shall lie, to be dangerous to the public travel, by reason of such railroad, or when any alteration of such highway, or the building of a new highway, in the opinion of said committee, or a majority of them, is thereby rendered necessary for the public safety and convenience, the town or towns whose duty it is to make such alteration or build such highway, or who are required by law to do the same, shall have the right, in case the railroad cor-

Liability of railroad companies for highways taken for railroad purposes or endangered thereby.

\* Determination of commissioners cannot be reviewed by the superior court. *Waterbury v H. P. & F. R. R. Co.*, 27 C. R., 146.



poration refuse to comply with the order of the court, (by any proper action,) to recover all damages and expenses incurred in such building or alteration of such highway, from the railroad corporation so taking or endangering the same; *provided*, that nothing herein contained shall apply to any highway laid out or constructed since the construction of a railroad across or near which it may run.

Not applicable to horse railroads.

SECT. 2. The provisions of this act shall not apply to horse railroads nor to any railroad within the limits of any incorporated city.

1852.  
When railroad company shall maintain a gate at a road crossing, &c.

SECT. 482. Whenever the selectmen of any town, or the mayor and aldermen of any city, in which any railroad company shall have located and constructed its railroad track across any turnpike, highway, or public street, upon a level with said turnpike, highway, or street, shall make written request to the railroad commissioners to make an examination of any such crossing said commissioners shall make such examination; and if, in their opinion, the safety and interests of the public require it, said railroad company shall erect and maintain a gate across said turnpike, highway or street, at such crossing, and provide an agent to open and close the same.

1865.  
Commissioners may order gates to be erected, or flagmen stationed at road crossings, when.

SECT. 483. The selectmen of any town in which the track of any railroad may cross any highway, upon a level with such highway, may, at any time, and, when requested by ten electors of said town, shall make application, in writing, to the railroad commissioners, requesting said commissioners to order a gate, or gates, to be erected or a flagman, or flagmen, to be stationed at the place where said railroad may cross said highway; and thereupon the commissioners, without unnecessary delay, shall visit said town and make an examination of such place, having first given reasonable notice of the time when said examination is to be made, so that said selectmen may be present thereat if they see fit; and if, upon such examination, the commissioners may be of opinion that the public safety and interests require it, they shall order the company operating said railroad to erect and maintain a gate or gates, or to station, and keep, a flagman, or flagmen, at said place, or to do any other acts, which the commissioners may deem needful, for the pro-

tection of the public at said place ; and in making any such order, the commissioners may specify at what time said gate is to be opened and closed, or at what times said flagman is to be kept on duty.

*In addition, June 30th, 1866.*

SECT 1. So much of section four hundred and eighty-three of the act of which this act is an alteration, as makes it the duty of "the selectmen of any town in which the track of any railroad may cross any highway, upon a level with such highway," when requested by ten electors of such town, to make application to the railroad commissioners, requesting them to order a gate or gates to be erected, or a flagman or flagmen to be stationed at the place where said railroad may cross said highway, is hereby repealed.

SECT. 2. Whenever the selectmen of any town shall, in pursuance of the four hundred and eighty-second and the four hundred and eighty-third sections of the act of which this act is an alteration, apply to the railroad commissioners, requesting them to make any of the orders mentioned in said sections upon any railroad company, and said commissioners shall be of opinion, upon examination, that the public safety and interests do not require that such order or orders be made, the town or towns whose selectmen shall make said application, shall pay to said commissioners all their fees and expenses arising under said application.

SECT. 484. The railroad commissioners may change any order, authorized in the next preceding section (section 483) when they deem it necessary so to do, but not without first visiting said town, and there giving the selectmen thereof a reasonable opportunity to appear before them, and object to the proposed change.

SECT. 485. The railroad company operating any railroad, which may cross any highway on a level with the same, and where there is or shall be no such gate, shall, at all times, keep and maintain good and sufficient warning boards of such form, size, and description, as the railroad commissioners shall approve.

SECT. 486. Whenever any railroad company

Repeal.

Expenses of unsuccessful application for railroad commissioners to order gate at road crossings, how borne.

Commissioners may change orders.

Railroad companies shall maintain warning boards at road crossings.

1860.

Penalty or



lect to place signals or flagmen, when directed.

shall neglect or refuse to place signals, or flagmen, at points on its roads, as may be recommended by the railroad commissioners, it shall forfeit to the treasurer of this state, the sum of fifty dollars for each day of said neglect, to be recovered in an action of debt on this statute.

*In addition, June 30th, 1866.*

Hand cars not to be left on railroad tracks near crossings.

SECT. 1. That no hand car or other car not moved by steam, belonging to any railroad company, and used by them upon any railroad in this state, when removed from the track of such railroad, (except when placed in a building prepared for it,) shall be allowed to remain within fifty feet of any road or highway crossing said railroad track.

Penalty.

SECT. 2. Any railroad company which shall be guilty of a violation of this act, shall be liable to pay a fine not exceeding the sum of fifty dollars, to the treasurer of the town within which such offense shall have been committed.

1857.  
States attorney to make complaint against railroad company neglecting to repair highway, &c.

SECT. 487. Whenever any railroad company shall neglect to construct any highway, or any bridge, which it is its duty to construct, and which is necessary to conduct any highway over its railroad, or shall neglect to keep in good and sufficient repair any such bridge, or any embankment, filling or abutment, which it is its duty to maintain, which has been, or may be constructed, for the purpose of conducting any highway over said railroad, or for the purpose of conducting such railroad over any highway, or shall neglect to keep in good and sufficient repair any bridge, owned by such company, and used by the public for the purposes of travel on foot, or in carriages, whether the same is, or has been, a toll or free bridge, the attorney for the state in any county, wherein such neglect exists, in which the whole, or any part of said bridge is situated, shall make complaint thereof to the superior court for such county; and said court shall proceed in the same manner against said railroad company, as is required against towns, neglecting to construct any road laid out by the superior court, or neglecting to keep in repair any public road within their limits, which it is their duty to construct, or keep in repair.

SECT. 488. Every owner of land, adjoining any railroad, who, prior to the twenty-second day of June, 1850, received compensation for fencing along the line of land taken for the purposes of said railroad, shall build and maintain a lawful fence on said line, or as near thereto as he conveniently can ; and if said owner, his heirs or assigns, shall not build said fence within sixty days after he shall have been notified so to do by said company, such company may build the same, and recover the expense thereof in an action of debt against the person so neglecting to build or maintain said fence.

1849.

Land owners, when to fence line of road and penalty for neglect.

SECT. 489. Every railroad company, which has been incorporated since the first Wednesday of May, 1850, or which shall be hereafter incorporated, shall erect and maintain good and sufficient fences on both sides of its railroads, throughout its whole extent, except at such places as, in the opinion of the railroad commissioners, the erection and maintenance of the same shall be inexpedient or unnecessary.

1850.

Railroad companies to fence line of road, when.

SECT. 490. Whenever any owner of land on the line of any railroad, while said road is, or shall be in process of construction, or after said road has been, or shall have been constructed, shall complain in writing to the railroad commissioners, that the railroad company, constructing or operating said road, neglects or refuses to erect a suitable fence along said line, to the damage or inconvenience of said land owner, said commissioners shall visit and examine the locality where said grievance is so alleged to exist ; and if, in the opinion of said commissioners, there is just cause for said complaint, said commissioners shall order said company to erect a suitable fence at said place, in such manner and within such time as, in the order, said commissioners shall prescribe ; and said order shall be served in writing on said company, in the manner and form provided by the four hundred and sixty-ninth section of this act.

1855.

May be compelled to fence line of road, on complaint of land owner.

SECT. 491. If any railroad company shall neglect or refuse to erect said fence, in compliance with said order of said commissioners, said company shall forfeit the sum of fifty dollars for each and every day's neglect or refusal so to do ; one half to him who shall sue therefor and prosecute his suit

Penalty for neglect to erect fence.



to effect, and the other half to the treasury of this state.

Land owners  
when to erect  
fence and how  
compelled

SECT. 492. Whenever it is the duty of any owner of land to erect a fence, in any place along the line of any railroad in this state, and such owner shall neglect to erect a suitable fence in such place, if, in the opinion of the railroad commissioners, such fence is needed thereat, they shall give notice in writing to said owner, that unless such fence shall be erected within a time specified in said notice, the railroad company, whose line is adjoining said land, will be required to erect such fence at the expense and charge of said owner; and if said owner shall not erect such fence, within the time so limited in such notice, the commissioners shall then notify said railroad company of their action, and of the neglect of said owner, and shall give an order in writing to said company to erect such fence, within such time as said order shall prescribe; and said order shall be served in the manner provided in the four hundred and sixty-ninth section of this act; and if said company shall neglect or refuse to comply with the terms of said order, it shall incur the same forfeiture, and to be recovered in the same manner, as is prescribed in the next preceding section of this act.

Railroad compa-  
ny to have a lien  
upon land of  
owner neglecting  
to erect fence, for  
expenses.

SECT. 493. Whenever any railroad company shall have incurred any expense in the erection of any fence, in compliance with the provisions of the next preceding section, such expense, having first been ascertained and approved by the railroad commissioners, shall constitute a lien, in favor of said company, upon the land against which said fence is erected, and adjoining and connected therewith, owned by the person whose duty it was to erect said fence; and said lien shall take precedence of every other lien or incumbrance upon said land, and may be foreclosed in the same manner as mortgage liens; but such lien shall not continue in force, unless said company shall, within sixty days after the completion of said fence, lodge a certificate with the town clerk of the town in which said land is situated, describing the premises on which said lien shall be claimed, and specifying the amount claimed as a lien thereon, and the date and commencement of said lien,

Certificate of lien  
to be filed with  
town clerk, and  
recorded.

which certificate shall be recorded by said town clerk in the land records of said town.

SECT. 494. Every railroad company shall construct and maintain good and sufficient fences, on one or both sides of its road, where the same runs within the limits of any public highway or turn-pike road, or adjoining thereto; and the commissioners shall examine and inquire into the necessity for the construction or repair of any fence or fences, on any part of said road, as aforesaid, when thereunto requested in writing by the selectmen of any town, or by the mayor of any city; and any railroad company, neglecting or refusing to comply with the order of said commissioners, within the time limited by them, shall forfeit the sum of one hundred dollars for each day beyond the time so limited, until said fence or fences shall be constructed, or repaired, to the acceptance of said commissioners; one half to him who shall sue therefor and prosecute his suit to effect, and the other half to the treasurer of the state.

1852.

Railroad company to maintain fences on part of their road, within highway, &c.

Penalty for neglect.

SECT. 495. Every railroad company shall construct suitable cattle guards, in the form of culverts or pits, at all places where its railroad shall cross public highways or passways, and in connection with such cattle guards, shall construct a good and sufficient fence to the lands of the adjoining proprietor, except at such places, as, in the opinion of the railroad commissioners, the construction of such cattle guards and fences shall be inexpedient or unnecessary, and such cattle guards and fences shall be constructed in such manner, as to prevent and restrain cattle from passing onto such railroad from said public highways and passways, or from the lands of adjoining proprietors; and any railroad company, which shall neglect or refuse to construct such cattle guards, shall forfeit the sum of one hundred dollars to the treasury of the state; and the attorney for the state in any county, in which it is the duty of such company to construct any such cattle guard, shall prosecute all violations of this section.\*

1850.

To construct cattle guards.

Penalty for neglect.

1865.

Petition to compel railroad companies to locate depot or station, by, to whom and how made.

\*Applies to railroad companies incorporated before and after the passage of the act. (1850. Bulkley v. N. Y. & N. H. Railroad Co., 27 C. R. 479.)



any railroad company therein named, whose railroad shall be then unfinished, and in process of construction, or about to be put in process of construction, ought, for the reasonable accommodation of the public, to locate and establish a depot or station on the line of said railroad at, or near, any point mentioned in said petition, and further alleging that the petitioners have reason to fear that said company does not intend to locate and establish said depot or station at, or near said point, the judge shall, by his order, in writing, direct such notice as he may deem reasonable to be given to said company, in such manner as said order shall direct, summoning said company to appear before him, at such time and place as said order shall specify, to answer said petition.

Judge may appoint an engineer to act with railroad commissioners in making location.

SECT. 497. At the time and place mentioned in such order, said judge shall give both parties reasonable opportunity to be heard in relation to the appointment of an engineer, for the purposes specified in the two next succeeding sections of this act; and thereupon said judge shall select and appoint a practical engineer, skilled in the construction of railroads, who shall act with the railroad commissioners in the manner provided in said sections; and said judge may, if he shall think proper, in any case, select and appoint such an engineer, who does not reside in this state, if the services of such a non-resident engineer can be obtained for said purpose; and the engineer appointed by said judge, shall be sworn to the faithful discharge of the duties of his appointment.

Commissioners and engineer may hear the petition and designate the location.

SECT. 498. The railroad commissioners, and the engineer, appointed in the manner provided in the next preceding section, shall upon said appointment being made, give such notice, as they may deem reasonable, to both parties to appear before them at such time and place as said notice shall designate, and be heard in relation to the matters alleged in said petition; and after having given said parties due opportunity to be heard, with their evidence, if said commissioners concur with said engineer in finding said petition to be true, they shall, by their order, in writing, specially designate the place, within the limits embraced in said petition, where the railroad company shall locate, establish and maintain, a suitable depot or station; and said

commissioners and engineer shall furnish a copy of said order to each party ; and thereupon said company shall locate and establish said depot or station at the place designated in said order, as soon as said company shall commence operating its railroad at said place, and shall thereafter maintain the same at such place.

SECT. 499. If the railroad commissioners shall concur with said engineer in finding said petition to be untrue, they shall dismiss the same ; and if said engineer shall not concur with said commissioners, either in finding said petition to be true, or in finding it to be untrue, the said engineer and said commissioners shall each make a written report of the facts found by them, respectively, and of their respective opinions thereon, and shall return said reports to said judge, who shall, thereupon, make such order relative to the subject matter of said petition, as, upon an examination of said reports, he may deem reasonable ; and any order so made by him against said company, shall be binding upon the same.

Petition to be dismissed if found untrue ; and engineer and commissioners to make reports to the judge, when.

SECT. 500. At the time of appointing said engineer, or at any subsequent time during the pendency of the proceedings, the judge may require the petitioners, on penalty of the dismissal of their petition, to furnish such security, as he shall order, for the payment of the fees and expenses of said engineer, upon the termination of his services, if he shall present his bill therefor to said judge ; and said judge shall thereupon, by such notice, as he may deem reasonable, give an opportunity to the petitioners, and to said company, to appear before him, and be heard in relation to said bill ; and he shall tax and allow said bill at such sum as he shall deem reasonable, and may make such order in reference to the payment thereof, by the petitioners or by said company, as, in his judgment, may seem right ; and the fees and expenses so taxed and allowed shall be paid in any event, by the petitioners ; but if said judge shall so order, the whole, or a part thereof, shall be refunded by said company to the petitioners.

Petitioners may be required to give security for payment of bill of engineer.

Bill to be taxed by the judge.

By whom paid.



*In addition, June 30th, 1866.*

Railroad stations  
not to be discon-  
tinued without  
approval of com-  
missioners.

SECT. 1. No railroad corporation shall abandon any depot or station, which is on its road, and in this state, after the same has been established for twelve months, except by the approval of the general railroad commissioners, given after a public hearing held at the depot in question, and of which hearing and of the intention to abandon, notice shall be given by posting the same conspicuously in said depot or station for one month previous to the hearing.

Stations aban-  
doned, when to  
be re-established.

SECT. 2. Any depot or station on any railroad in this state, which has been abandoned at any time since the first day of January, 1866, shall, upon the petition to the general railroad commissioners of thirty freeholders residing in the town where said depot or station was located, be restored upon the approval of said commissioners given after a public hearing held at the depot nearest to said discontinued depot, and after notice of said hearing shall have been conspicuously posted at the place of hearing for one month previous to the hearing.

*In addition, June 30th, 1866.*

When railroad  
trains may be re-  
quired to stop  
near villages.

SECT. 1. Whenever any village in this state containing a population of not less than two hundred inhabitants, is situated upon the line of a railroad, and the business centre of said village is more than one and one-half miles distant from the nearest station on said railroad, and not more than one-third of a mile distant from said railroad, it shall be the duty of the general railroad commissioners, upon the petition of twenty or more inhabitants of said village, praying that the trains upon said railroad shall be required to stop at or near said village, to receive and discharge passengers and freight, to inquire into all the facts of the case, and if (having a due regard for the interest in general) they find that the prayer of the petitioners can be granted without serious injury to the business of said railroad, they may give such directions and orders in regard to the stoppage of any of the trains upon said railroad, at or near said village, for the purpose

of receiving and discharging passengers and freight, as they shall deem it just and reasonable.

SECT. 2. Any railroad company which shall re- Penalty.  
fuse or neglect to comply with such directions of the general railroad commissioners, shall forfeit and pay to the treasurer of this state twenty dollars a day for each day of such neglect or refusal. No railroad company whose trains may be required to stop at or near any village, as provided in the foregoing section, shall charge more than five cents for each mile and fraction of a mile on passengers between such village and the next nearest station.

*In addition, July 31st, 1868.*

SECT. 1. Whenever any railroad company in this state shall refuse to stop any one or more of its passenger trains at any depot on the line of its railroad, any number of citizens not less than ten of the town or city in which such depot is situated, may make their application in writing to the superior court in the county where such depot is located, and if said court is not in session, to any judge of the superior court or of the supreme court of errors, praying that said company may be ordered to stop the train or trains mentioned in said application, at said depot. Application may be made to the superior court to compel railroad companies to stop their passenger trains at any depot on its line.

SECT. 2. Said application shall be heard and decided by a committee of three judicious and disinterested persons, to be appointed by said court or said judge, as the case may be, at such time and place and with such notice to those interested as said court or judge shall order, and said application shall be served at least six days before the session of the court or the return day named in said application, and if said committee, being first duly sworn, shall be of opinion, in view of all the facts and circumstances, that said application ought to be granted in whole or in part, they may issue an order to said company, directing said company to stop their train or trains in the manner prescribed in said order, or said committee may make such other order and grant such other relief in the premises as to them shall seem just and reasonable, and shall make return of their doings to the next term of the superior court in said county. Such application how heard and decided.



Acceptance or rejection of the report of the committee.

SECT. 3. Upon the return of the report of said committee of their doings, to said court, either party may object to the acceptance of the same for any irregularity or improper conduct, and the court for such cause may set it aside and order a rehearing, but if the court accept and establish the same it shall be conclusive in the matter, and it shall be the duty of said company to obey said order.

Order how enforced.

SECT. 4. Said order may be enforced by mandamus at the relation of either party, and the costs of said proceeding may be taxed by said committee against either or both of said parties at their discretion.

Costs.

1863.  
Railroad companies may alter the location of their roads, for certain purposes.

SECT. 501. Every railroad company after its line of road shall have been located, approved and established, may so far alter the location of such road as to change the radius of its curves, straighten and improve its lines, width and extent of depot grounds, slopes and embankments, and extend its lines of sight, when such changes are approved by the railroad commissioners; a certificate of which changes, duly signed by such commissioners, shall be lodged in the town clerk's office, in the town or towns where such changes are made.

Certificates to be lodged.

When and how land may be taken by appraisal.

SECT. 502. If, in making such alterations, it shall be deemed necessary, in the opinion of the railroad commissioners, to take land to which such company has not obtained a title, and over which it owns no right of way, and said company cannot agree with the owner or owners thereof, in regard to the amount of damages to be paid therefor, such company shall pay therefor such damages as shall be estimated and determined by appraisers, to be appointed by the superior court in the county where such land is situated, or by some judge of said court in vacation, after first giving, to the owner or owners of such land, such notice of the time and place of hearing such application as said court or judge shall deem reasonable. Said appraisers, after being sworn, shall personally examine the land so proposed to be taken, and hear the parties in regard to the value thereof, at such time and place as the said appraisers may designate and appoint; and their appraisalment, when made, shall be in writing, signed by such appraisers and returned by them to the clerk of the superior court for the county where

such land is situated, who shall record the same. The expenses so incurred shall be paid by such railroad company, or by such land owner or owners, or shall be equitably apportioned between them, as said appraisers shall direct; and the amount of damages so appraised shall be paid to such owner or owners, or deposited with the clerk of said court, for the benefit of such owner or owners, within sixty days after such appraisal is made; and until such money is paid, or deposited, such company shall not use or prepare such land for the purposes aforesaid.

Damages to be paid or deposited before using the land.

SECT. 503. When any such railroad is in the possession of the trustees of its bondholders, or of an assignee, or of a trustee in insolvency, the persons so in possession, shall have the same rights, powers and privileges as are conferred, in the two next preceding sections, upon railroad companies; and all expenses and damages incurred by such persons so in possession, in good faith, to improve the lines of the railroads so in their charge, shall be reimbursed to them from the earnings of such railroad, while they have the possession thereof.

Trustees or assignees of railroads have the same powers, &c., as the corporation.

SECT. 504. Before the railroad commissioners shall approve the laying out of any railroad, or the taking of any land for the purposes of said road, or any change or alteration of the same, they shall give reasonable notice to the owner of such land to attend and be heard; and the appraisers shall cause a like notice to be given to the owners of the land taken, or proposed to be taken; and if the owner of any such land resides without this state, any judge of the superior court may prescribe the notice which may be given to him.

1849.  
Notice to be given to the owners of land before commissioners approve laying out railroad, or taking land.

SECT. 505. No railroad, or part of any railroad, shall be opened for public travel, unless the railroad company shall first obtain a certificate, signed by a majority of the railroad commissioners, that said road is in a suitable condition for the safe operation of engines and cars thereon.

1856.  
Commissioners shall give a certificate before railroad shall be opened.

SECT. 506. Every person who shall, after said railroad is opened for use, ride, drive, or lead any horse, or other beast, upon the track of such road, except for the purpose of crossing the same, without the consent of the railroad company, or its agents, shall, for every such offense, forfeit a sum not exceeding one hundred dollars, and shall also

1849.  
Penalty for riding or driving animals on railroad.



be liable for all damages thereby sustained by any person, to be recovered in an action on the case.

*In addition, June 30th, 1866.*

Footways upon  
railroad bridges,  
how authorized.

Whenever it shall be the opinion of the selectmen of any town or towns, or of the common council of any city in this state, that a footway upon the line of any railroad bridge or causeway within the limits of such town or city would be of public convenience, and the railroad company owning such bridge or causeway shall not consent thereto, such selectmen or common council may call out the railroad commissioners, who, after due notice to such railroad company, shall proceed to enquire into the facts, at the expense of such town or city. And if the railroad commissioners shall, upon such hearing, find that a footway along such bridge or causeway would be of public convenience or accommodation, they shall authorize such town or towns, or city, to construct and maintain the same at their own expense, and to attach the same for support to such bridge or causeway; *provided*, that such footway shall be constructed entirely outside of the bridge or causeway to which it is attached, and shall be so constructed, used and maintained as not to interfere with the necessary and proper use of such bridge or causeway by such railroad company.

Railway compa-  
ny may establish  
tolls, on passen-  
gers and freight,  
&c.

SECT. 507. Every railroad company may establish, for its sole benefit, a toll upon all passengers and property conveyed or transported on its railroad, at such rates as may be determined by the directors of the company, and may fix the time and departure of trains, and regulate the conveyance, and transportation, and weight of loads, and all other matter and things in relation to the use of such road, as the directors may determine; and such company shall carefully consult the safety, convenience, and comfort of its passengers, and shall adopt such rules for the government of its superintendents, conductors, agents, and servants, regarding the reception, bestowment, transportation, and delivery of passengers and luggage as shall be necessary for that purpose; and when two roads meet at the same terminus, or when they intersect each other, the railroad commissioners shall, at the request of the directors of either of said roads, pre-

scribe such regulations relative to the exchange and reception of passengers and luggage as they deem best, and the said railroad companies, their officers and agents, shall be governed thereby.\*

SEC. 508. No railroad company, which has had a system of commutation fares in force for more than four years, shall abolish, alter, or modify the same, except for the regulation of the price charged for such commutation; and such price shall, in no case, be raised to an extent that shall alter the ratio, as it existed on the first day of July, 1865, between such commutation and the rates then charged for way fare, on the railroad of such company.

1865.  
Railroad companies prohibited from abolishing or altering commutation, when.

*In addition, July 19th, 1867.*

That whoever fraudulently evades or attempts to evade the payment of any toll or fare lawfully established by a railroad corporation, either by giving a false answer to the collector of the toll or fare, or by travelling beyond the point to which he has paid the same, or by leaving the train, without having paid the toll or fare established for the distance traveled, or otherwise, shall be punished by fine of not less than five nor more than twenty dollars for each offense. Whoever does not upon demand, first pay such toll or fare, shall not be entitled to be transported over any railroad. *Provided*, that conductors or employees of railroad companies shall not put a passenger off from trains between stations.

Penalty for fraudulently evading payment of toll or fare.

Proviso.

SEC. 509. Every railroad company may borrow money, at any rate of interest, not exceeding seven per cent. per annum, payable semi-annually, and may secure the re-payment of the same by its bonds, with or without its corporate seal, signed by its president, and countersigned by its treasurer, with or without coupons, or certificates of interest, due at the end of every six months, attached thereto; but before being issued, said bonds shall be registered in the office of the comptroller of public accounts, and a certificate thereof shall appear on the face of each bond; and the comptroller shall,

1840.  
Corporation may borrow money, and issue bonds therefor.

\*May establish one rate for those procuring tickets, and another for those paying on the cars. *Crocker v. N. L. & P. R. R. Co.*, 24 C. R., 249.



upon the application of the company, cancel any bonds, so by him registered, which may be brought to him for that purpose, and shall enter said act of canceling in his register; but no railroad company shall issue any bond of a less denomination than one hundred dollars, nor shall any such company have bonds outstanding, at any one time, to a greater amount than one-third of the sum which its president and chief engineer shall certify, under oath, to the comptroller, has been actually expended upon its road; and any false swearing in this matter, shall render the offender liable to be punished for the crime of perjury; and the comptroller shall not permit the bonds of any railroad company, registered in his office, and uncanceled, to exceed the amount limited in this section.\*

1850. 1857.  
Railroad compa-  
ny may sell its  
bonds.

SEC. 510. Any railroad company may sell, or dispose of, its bonds, legally issued, at such times, and on such terms, as shall be authorized by its stockholders, at a legal meeting called for that purpose.

1849.  
Railroads may be  
mortgaged to se-  
cure bonds.

SEC. 511. The company may, by a vote of the stockholders, at a meeting called for that purpose, secure said bonds by a mortgage of its railroad, and all its property, rights and franchises under its charter, or any part thereof, by deed duly executed by its president, under the corporate seal, to the treasurer of the state, and his successors in office, in trust for the holders of said bonds, and recorded in the office of the secretary of this state.

1858.  
Railroad compa-  
ny to surrender  
mortgaged prop-  
erty to trustees,  
&c., when.

SEC. 512. Whenever any railroad company shall have mortgaged or conveyed its railroad, or railroad property, or any part thereof, to any person, in trust, for the security of its bondholders, or other creditors, or for the security of any class of such bondholders or creditors, and shall have made default in the payment of principal or interest, due to such creditors, according to contract, any such creditor may prefer his petition to the superior court, in any county in which such railroad, or any part thereof, is located, setting forth such fact, and praying that the trustee, for the benefit of such bondholders or creditors, may be placed in the possession of such mortgaged property, for the benefit of such credit-

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\*Various points as to liability of R. R. Companies upon their bonds. *Crosby v. N. L., W. & P. R. R. Co.*, 26 C. R., 121.

ors, and such petition shall be heard and determined at the first term of the court to which it is returnable, unless continued for reasonable cause; and if the allegations thereof are found true, such court shall order and decree that the said corporation, and the president and directors thereof, under a suitable penalty, shall surrender such mortgaged property to the trustee, for the benefit of such creditors.

SECT. 513. Whenever any such trustee shall have taken possession of any railroad, or railroad property, in pursuance of the provisions of the next preceding section, or in pursuance of any authority contained in the mortgage or deed of trust, he shall take charge of, and operate, such railroad, or railroad property, for the benefit of the creditors for whom such trust was created, and he shall not be personally liable for any cause or injury arising from the operation of such road, or while he may operate the same, except for his wilful mismanagement, or for any contracts made by him as such trustee; but all such railroad property shall be liable for the acts and proceedings of such trustee, in the execution of his trust, to the extent of the interest of the trustee of the bondholders, or creditors, for whose benefit such trustee may act; and any action or other proceeding, for the purpose of making the said property liable, shall be brought against such trustee, describing him as such.

Liability of trustee, in possession of railroad, &c., limited.

Trust estate liable for acts of trustee.

SECT. 514. The trustee, upon taking possession of such property, shall make an inventory of all the property which may have come into his possession, so far as the same shall be known to him, under oath, and shall lodge the same for record in the office of the secretary of this state; and if any other property shall, from time to time, be discovered by him, he shall make a like inventory, under oath, and lodge the same for record, as aforesaid.

Trustee to make an inventory, and where lodged.

SECT. 515. The trustee shall, from time to time, while operating such road, render his account quarterly, into the office of the secretary of this state, of all moneys received or disbursed by him, in the course of his agency; and he may proceed at his discretion, in the superior court, in any county in which such railroad, or any part thereof, is located to foreclose the said railroad company, and all subsequent incumbrancers, for the use of the bondhold-

Trustee to render quarterly accounts to secretary of state.

May foreclose, for the bondholders.



ers, or other creditors for whom he acts ; and such superior court may limit the time for the redemption of the mortgaged property, as in the ordinary proceedings for the foreclosure of real property.

Superior court  
may remove trustee for cause, and  
appoint another.]

SECT. 516. If such trustee shall neglect his duties, or unnecessarily delay to perform the same, any creditor represented by such trustee, may apply to any superior court aforesaid, for the removal of such trustee, which application shall be heard at the first term of said court ; and upon such facts being found true, such court may remove the trustee from his office, and appoint another in his stead, and at its discretion may, upon the application of any such bondholder or creditor, remove a trustee, and fill the vacancy.

Proceedings of trustees for prior incumbrancers, not to be affected.

SECT. 517. Nothing in the five next preceding sections of this act shall affect any mortgage, trust, or lien upon the property foreclosed, which was created prior to the mortgage, trust, or lien, under which the said trustee may act ; but the trustee for all such prior incumbrancers may proceed, by foreclosure or otherwise, notwithstanding any act or proceeding by subsequent incumbrancers, or their trustees.

Expenses of road damages, compensation of trustee, &c., to be deducted from earnings.

SECT. 518. The expenses of operating such railroad, or other property, including repairs and all other reasonable expenses of the trustee, and any damages incurred for any injury sustained while in the execution of said trust, and all claims secured by any prior mortgages or incumbrances, which shall have become due and payable before or during the time he is executing his trust, and also a reasonable compensation to be allowed to the trustee, by the superior court, shall be first deducted from the earnings of the road, before any part of such earnings shall be paid to the bondholders, or other creditors.

1859. 1864.  
Railroad companies to afford mutual facilities, &c., for passengers.

SECT. 519. Every railroad company shall run its trains each way, for passengers, at such times and in such manner as to afford reasonable facilities for receiving passengers from, and delivering them to, the other railroads in this state, connected therewith ; and whenever the business connections of the railroad of any railroad company, with the railroad of any other company, are not convenient and reasonable for the accommodation of passengers over said road, said company shall make such

connections as the public travel and business may require.

SECT. 520. Any person who shall be aggrieved by the neglect or refusal of any railroad company to make such connections, as the public travel and business may require, in the manner provided in the preceding section, may prefer a petition to any judge of the superior court, who is not a resident of the county in which the grievance complained of exists, which petition shall be served upon the respondents at least twelve days before the same is made returnable; and said judge shall hear the parties, if they shall appear, and, if in his judgment a necessity exists therefor, shall appoint a committee to inquire into the allegations of the petition, who, after such reasonable notice to the respondents to appear and answer before such committee, as said judge shall order, shall proceed to a hearing on such petition, and shall report the facts found by them to said judge,; and, if the committee shall find the allegations in the petition to be true, such judge shall order that such company, or companies, shall make such connection, on penalty of not less than fifty dollars for each day that such company, or companies, shall neglect or refuse to obey such order.

1864.  
Party aggrieved by neglect of railroad company to make connection, may petition a judge of the superior court.

Judge shall appoint a committee to make inquiry.

SECT. 521. Whenever any such order shall be made, the respondent or respondents shall pay the costs of the application, which shall be taxed by the judge who shall make such order, but if the judge shall refuse to make such order, the petitioner shall pay such costs.

Costs of petition how paid.

SECT. 522. Nothing in the three preceding sections of this act shall be construed to authorize the merger of any railroad companies, or to authorize any railroad company to lease its road to any other such company.

What shall not be a merger.

SECT. 523. When the railroad of any company, being a trunk road, shall, at or near the same place, connect with or be intersected by two or more other railroads, which are competing lines for the business to or from such trunk railroad, equal facilities, including price and rates, shall be afforded by the company operating said trunk road, to each of said competing roads, and to the managers, officers, servants, agents thereof, in the interchange of cars, and transportation of freight, as well as in

1859.  
Trunk roads to afford equal facilities in exchanges of passengers, &c., to competing roads which intersect their line.



ticketing of passengers, and checking of baggage.

Railroad commissioners, on complaint, &c., to prescribe regulations for securing reasonable facilities, &c.

SECT. 524. If any such competing railroad company shall, at any time, deem itself aggrieved in reference to such facilities, the managers of such aggrieved company may complain to any judge of the superior court residing in any county in which any part of said trunk road shall be located, therein stating the grounds or causes of complaint; and thereupon said complaint having been duly served on the company or companies complained of, pursuant to the order of said judge, shall be heard by the railroad commissioners, at such time and place as said judge shall order and direct; and said commissioners, having examined into the alleged grievances, shall prescribe such regulations, as will, in their judgment, secure reasonable facilities for the accommodation of the business of each of said railroads, so connecting with each other, pursuant to the provisions of this act, and said commissioners shall also fix the terms and conditions on which such facilities shall be afforded by or to each of said railroad companies; and the doings of said commissioners, when returned to and approved by said judge, shall be binding upon the parties; and the superior court, in either of the counties aforesaid, shall have power to compel the performance thereof, by attachment, mandamus, or otherwise, and the expenses of the proceedings shall be paid by said parties, as shall be determined on by said court.

1856. 1859.  
If good cause exist, the commissioners may order connections to be made, &c.

SECT. 525. Whenever it shall appear to the railroad commissioners, by the written complaint of the president, or a majority of the directors, of any railroad company in this state, or of a majority of the selectmen of any town, through which any railroad passes, that the business connections of any other railroad, connected with such railroad, are not convenient and reasonable for the accommodation of the inhabitants on the line of such road, said commissioners shall forthwith cause a notice, as is provided in the four hundred and sixty-ninth section of this act, to be given to such railroad company, and all other parties interested, specifying the time and place of hearing such complaint, by said commissioners, and, on such hearing, if good and sufficient cause exist, they shall

give such relief and make such regulations in relation thereto, as, in their judgment, will be for the best interest of all parties concerned; and any railroad company refusing or neglecting to comply with such regulations, shall forfeit to the treasurer of the state the sum of twenty-five dollars for each day of such refusal or neglect.

SECT. 526. Every railroad company which shall run cars for the conveyance of passengers, shall from the first day of May until the first day of November, annually, while conveying passengers, carry on each passenger car a suitable quantity and quality of good drinking water, or shall cause the same to be carried through such car at least once in each sixty minutes during the time said car shall be running over its road with passengers on board, for the free use of the passengers in such car, and shall furnish suitable and convenient appurtenances for carrying said water, with a clean glass tumbler for using the same; and any railroad company refusing or neglecting to comply with the requirements of this section, shall forfeit the sum of twenty-five dollars, to be recovered in an action on this statute, by any person who shall sue therefor, and prosecute his suit to effect.

1864.  
Railroad companies to furnish drinking water for passengers.

Penalty for neglect.

*In addition, July 26th, 1867.*

SECT. 1. That each railroad company owning or operating any line of railroad in this state, shall, on or before the first day of September next, provide and thereafter maintain at each passenger station upon their respective railroads, suitable water-closets for the accommodation of passengers, and for each neglect or refusal to comply with the provisions of this act, shall forfeit the sum of one hundred dollars, one-half to him who shall sue therefor and prosecute his suit to effect, and the other half to the treasury of this state.

Railroad companies to maintain water-closets at each passenger station.

Penalty for neglect.

SECT. 2. It shall be the duty of the railroad commissioners to see that the provisions of this act are enforced.

Duty of railroad commissioners in the matter.

*In addition, June 30th, 1866.*

SECT. 1. It shall be the duty of the railroad companies of this state to cause to be placed in a conspicuous manner, upon the outside of each

Cards designating trains and directions to be placed on cars.



passenger car of each of their passenger trains which leave any station at the termini of their own roads or any other road, a legible card or cards, not less than three feet in length, with large letters, designating way trains from express trains, and the direction in which the trains are to move.

Penalty for neglect.

SECT. 2. Any railroad company neglecting to comply with the provisions of the preceding section after the first day of August, 1866, shall be liable to pay a penalty of ten dollars for each and every day of such neglect.

Proviso.

SECT. 3. The railroad commissioners are hereby authorized to release any railroad company from compliance with the provisions of this act, whenever, in their opinion, the convenience of the public does not require it.

1856.  
Certain employ-  
ees of railroad  
companies to  
wear badges.

SECT. 527. All the conductors, brakemen, and baggage-men, employed upon the passenger trains of any railroad company in this state, shall wear, when on duty, in a conspicuous place, a badge or mark, denoting their respective duties, and the company by whom they are employed.

1848.  
Checks to be given  
for baggage,  
&c.

SECT. 528. Whenever any passenger shall be separated from his baggage, by the regulation of any railroad company, said company shall give to such passenger a receipt or check for his baggage, at the time of receiving it, unless such passenger shall waive the right to such receipt or check; and every company which shall not give such receipt or check, as aforesaid, shall pay to the person whose baggage is so received, the sum of ten dollars, which may be recovered in an action of debt.\*

*In addition, July 11th, 1867.*

Railroad compa-  
nies to receipt  
for freight.

Whenever any person shall deliver to any railroad company, any goods, wares, merchandise, or other commodity for transportation, such company shall give to the owner or shipper thereof, a receipt for the same, describing the goods, wares, merchandise or commodity so received for transportation, and every company which shall refuse to give a receipt as herein provided, shall pay to the person

\* As to nature of check, and liability of railroad companies for baggage, *Hickox v. Naugatuck R. R. Co.*, 31 C. R. 281.

entitled to the same, the sum of fifty dollars, which may be recovered in an action of debt.

SECT. 529. No minor shall climb, jump, step, or stand upon, or cling to, or in any way attach himself to, any engine or car, either stationary or in motion, upon any part of the track of any railroad, unless in so doing he shall be acting in compliance with, and by permission of, the lawful rules and regulations of the company then owning or managing said railroad.

1865.  
Minors prohibited from climbing, &c., upon cars.

SECT. 530. Whenever any station agent, freight agent, or other officer or agent of any railroad company, employed to transact, at or near any railroad station, any part of the business of said company, shall know, or have immediate and reliable information, that at, or near, said station, any person has violated either of the provisions of the preceding section, and has thereby endangered himself, or caused reasonable alarm to others, said officer or agent shall, without unnecessary delay, make complaint of said offense, against such person, to a grand juror of the town in which said offense shall have been committed, or to some other officer in said town, having authority to prosecute for said offense: and thereupon said grand juror or other prosecuting officer shall forthwith prosecute said offender for said offense.

Agent of railroad companies to make complaint.

SECT. 531. Every parent, or other person having legal control of any child, shall use, at all times, the utmost reasonable care and diligence to prevent said child from unnecessarily loitering or lingering at, or near, any railroad station, or railroad track, and to prevent said child at all times from being, unnecessarily, at, or near, any such station or track at all, except while under the immediate care of some adult person.

Parents shall prevent children from loitering at railroad station or track.

SECT. 532. Every person who shall violate any of the provisions of the three preceding sections, shall be punished by a fine not exceeding fifty dollars, or by imprisonment in a common jail for a period not exceeding thirty days, or by such fine and imprisonment both.

Violation of three preceding sections, how punished.

SECT. 533. The railroad commissioners shall, without unnecessary delay, cause printed copies of the four preceding sections of this act to be posted in conspicuous places at all railroad stations in this

Commissioners to post copies.



state, and shall cause such copies to be at all times kept so posted at said stations.

*In addition, July 27th, 1867.*

Climbing, &c., on railroad cars or engines, or occupying depot grounds contrary to lawful regulations of the company, prohibited.

SECT. 1. No person shall climb, jump, step or stand upon, or cling to, or in any way attach himself to any engine or car, either stationary or in motion, upon any part of the track of any railroad, or occupy the platform or any part of the depot grounds thereof, unless in so doing he shall be acting in compliance with and by permission of the lawful rules and regulations of the company owning or managing said railroad.

Minors to be restrained from loitering near railroad stations or tracks.

SECT. 2. Every parent or other person having legal control of any minor, shall use, at all times, the utmost reasonable care and diligence to prevent said minor from unnecessary loitering or lingering at, or near, any railroad station, or railroad track, and to prevent said minor at all times from being unnecessarily at, or near, any such station or track at all, except while under the immediate care of some adult person.

Penalty.

SECT. 3. Any person who shall violate any of the provisions of this act shall be liable to be proceeded against in the same manner, and shall be subject to the same punishment, as is provided in the General Statutes, title VII, chapter VII, sections five hundred thirty and five hundred thirty-two of an act concerning Communities and Corporations.

Repeal.

SECT. 4. All acts and parts of acts inconsistent herewith are hereby repealed.

1851.  
Locomotives to be provided with bell and whistle.

SECT. 534. Every locomotive engine, used upon any railroad in this state, shall be supplied with a bell of at least thirty-five pounds weight, and with a suitable steam whistle, which said bell and whistle shall be so attached to such engine, as to be conveniently accessible to the person running or controlling the motions of such engine, for the purpose of sounding the same; and if any railroad company shall permit any such engine to be run upon its road, or any road operated by it, without such whistle and bell so attached thereto, in good order for use, and conveniently accessible as aforesaid, such company shall forfeit to the treasurer of

this state the sum of one hundred dollars for each day that such engine shall be so run upon such road, or any part thereof, to be recovered by an action of debt in the name of such treasurer.

Penalty for neglect.

SECT. 535. Every person, running or controlling the motions of any locomotive engine upon any railroad in this state, shall commence sounding the bell or steam whistle attached to such engine, whenever such engine shall be in motion and approaching, and within eighty rods of, the place where said railroad crosses any turnpike, highway, or street, upon the same level with such railroad, and shall keep such bell or whistle occasionally sounding, until such engine has crossed such turnpike, highway, or street; and the railroad company in whose employment such person so running or controlling the motion of such engine may be, shall pay all damages which may accrue to any person in consequence of the omission of such person, so running or controlling the motions of such engine, to comply with the provisions of this section; and if any person shall be deprived of life in consequence of such omission, such railroad company shall forfeit the sum of one thousand dollars to the widow of such person, if there be such widow, and if there be no widow, to the children of such person, and if there be neither widow or children, then to the nearest relatives of such person, to be recovered by an action of debt on this statute.

Engineers to sound bell or whistle when crossing highways, &c.

Liability of corporation.

Forfeiture in case of death occurring by neglect or omission of engineer.

SECT. 536. Every person, running or controlling the motions of any locomotive engine, on any railroad in this state, who shall violate the provisions of the next preceding section of this act, shall forfeit, for every such violation, the sum of twenty-five dollars to the treasurer of the town in which the offense is committed; and any railroad company that shall, knowingly, employ any engineer, who has been twice convicted of violating the provisions of said section, shall forfeit the sum of five hundred dollars, to be recovered by an action of debt on this statute, or upon complaint or information brought by an informing officer of such town.

Penalty for violation by engineers, &c.

SECT. 537. No railroad company shall permit any person to run or drive any locomotive engine over or upon any railroad belonging to, or in possession of and operated by, such company, unless

Engineers to receive printed copies of this act, and be sworn to comply with its provision.



Penalty for railroad companies violating these provisions.

such person shall have first received a printed copy of this and the three next preceding sections of this act, and shall have been sworn before some justice of the peace, or other officer authorized to administer oaths, to a faithful compliance with the provisions thereof; and any railroad company, which shall violate the provisions of this section, shall forfeit to the treasurer of this state the sum of fifty dollars, for each day that such person shall be so permitted to run or drive any locomotive engine as aforesaid, to be recovered by an action of debt, in the name of such treasurer.

*In addition, June 22d, 1866.*

Railroad cars to be provided with connecting aprons.

SECT. 1. That every railroad company conveying passengers, in this state, shall provide their passenger, baggage, mail, and express cars with a proper and suitable connecting apron, of the full width of the track, attached to the platform of their cars, so as to enable persons to pass from car to car with safety.

Connecting aprons, how made.

SECT. 2. The connecting aprons shall be of a material and pattern that shall meet the approval of the general railroad commissioners.

Penalty.

SECT. 3. Any railroad company not complying with the provisions of this act on or before the first day of September, 1866, shall forfeit to the treasurer of this state one hundred dollars for each and every day of said neglect, said penalty to be recovered in an action upon this statute.

Exception.

SECT. 4. Nothing herein contained shall require any railroad company to provide an apron between the platform of any freight or baggage car and the platform of a passenger car attached to a freight train.

*In addition, June 6th, 1867.*

Use of the "Expansion Safety Bridge" to be deemed a compliance with the Act of 1866.

SECT. 1. That every railroad company in this state which has heretofore placed upon its cars, and continue to keep the same on with the approbation of the railroad commissioners, the device or mechanism known as the "Expansion Safety Bridge," or any other similar device, shall be deemed to have complied with the Act entitled "An Act in

addition to an Act concerning Railroads," passed at the May Session, A. D. 1866, and approved June twenty-second, A. D. 1866, and shall not be liable to any of the penalties in said act provided.

SECT. 2. All acts and parts of acts inconsistent herewith are hereby repealed. Repeal.

SECT. 538. All passenger trains, run upon any railroad in this state, which crosses any stream or harbor by a drawbridge, or which intersects and crosses, or is intersected and crossed by any other railroad, shall be brought to a full stop, at a distance not less than two hundred feet, nor more than one thousand feet, from the draw in every such bridge, and the point of intersection and crossing of such road, and in plain sight of the same, before such draw or crossing is passed, or attempted to be passed, by any such train; but the railroad commissioners may authorize the passing of any draw or any railroad crossing, without stopping as aforesaid, by a writing, signed by a majority of them, whenever, in their opinion, the same can be done consistently with the public safety. 1853. Passenger trains to stop before passing draw bridge or railroad crossing. Commissioners may authorize passing without stopping.

SECT. 539. Every engine-man running such train, who shall violate the provisions of the next preceding section, shall be punished by a fine not exceeding one hundred dollars, or by imprisonment in a common jail for a term not exceeding three months; and the president and directors of any railroad company, who shall knowingly permit any passenger train upon their road, to be run over any such draw or crossing, without first making the stop prescribed in the next preceding section, shall forfeit the sum of five hundred dollars, to be recovered of them by an action of debt upon this statute, one-half to him who shall prosecute to effect, and the other half to the treasury of the state; and personal service of the writ in said action, upon any one or more of them, who may be residents of, or found within, this state, shall be sufficient service to bring all of them to trial. Penalty for violation.

SECT. 540. All railroad trains, which are obliged to come to a full stop before crossing any drawbridge, shall, whenever the railroad commissioners shall so order, be brought to such a full stop at the regular station, nearest to such drawbridge, for a sufficient length of time to accommodate 1865. Passenger trains to stop at nearest regular station to a drawbridge.



passengers who may desire to enter or leave said trains at such station, if said station is in full view of said drawbridge, and not more than one hundred and twenty rods therefrom. .

1853. 1856.  
Not to permit a  
train to run over  
switch, &c., un-  
less there be a  
switchman at  
junction, &c.

Penalty for vio-  
lation by engine-  
man.

Penalty for vio-  
lation by presi-  
dent and direc-  
tors.

SECT. 541. No railroad company shall run, or permit any passenger train to be run, over any switch, at any railroad junction of two or more different roads, or at any station where such train does not regularly stop, or is not then to be stopped, unless there be, at the time when such train shall arrive near any such switch, a switchman standing at such junction switch, or the station switch so first approached, with a white flag by day or a light in the night, to indicate that such switches are in a proper position for the passage of such train, or unless, in the absence of such switchmen, said train shall be first brought to a full stop, at a distance of not less than two hundred feet, nor more than seven hundred feet therefrom; and every engine-man, who shall run a train over any such switch contrary to the provisions of this section, shall be punished by a fine not exceeding one hundred dollars, or imprisonment in a common jail for a term not exceeding sixty days, or by such fine and imprisonment both; and the president and directors of any railroad company, who shall knowingly suffer and permit such train to be run over any such switch, contrary to the provisions of this section, shall forfeit the sum of five hundred dollars, to be recovered in an action of debt, on this statute, one-half to him who shall prosecute to effect, and the other half to the treasury of the state; and the service of the writ, in the manner prescribed in the five hundred and thirty-ninth section of this act, shall be sufficient service to enable the plaintiff to maintain said action against all of them; but the railroad commissioners may dispense with such switchmen, at such places on any railroad where, in the opinion of such commissioners, other equally safe signals and protections are provided.

1853. 1854.  
Number of brake-  
men on train.

SECT. 542. Upon every train run, or intended to be run, upon any railroad in this state, at a greater average speed than thirty miles an hour, between stations, and consisting of more than two passenger cars, one brakeman shall be placed and kept at the brake of each car connected with such

train ; and if any such train shall be run upon any road in this state, without a brakeman, provided and stationed at the brake of each car, as aforesaid, the company owning or running such road, shall forfeit, for each offense, the sum of one hundred dollars, one-half to him who shall prosecute to effect, and the other half to the treasury of the state, to be recovered in an action of debt on this statute ; but whenever the double-action brake is used on any such train, such corporation shall be required to place, and keep, but one brakeman at and to every two cars connected with such train.

SECT. 543. If, in consequence of the intoxication, or any gross or willful misconduct, or negligence on the part of any conductor, engineer, or of the switch, bridge, or brake tender, or signal man, or any other servants, of such corporation, any loss of life, or the breaking of a limb, shall be caused, such servant or servants shall be deemed guilty of felony, and shall be punished by imprisonment in the state prison for a term not exceeding ten years.

1853.  
Loss of life, &c.,  
ensuing from in-  
toxication, &c., of  
servant of cor-  
poration, felony.

SECT. 544. If the life of any person, being a passenger, or crossing upon a public highway in the exercise of reasonable care, shall be lost by reason of the negligence or carelessness of any railroad company in this state or by the unfitness, or negligence, or carelessness, of its servants or agents, such railroad company shall be liable to pay damages, not exceeding five thousand dollars, nor less than one thousand dollars, to the use of the executor or administrator of the deceased person, to be recovered by such executor, or administrator, in an action on the case upon this statute, for the benefit of the husband, or widow and heirs of the deceased person, one moiety thereof to go to the husband, or widow, and the other to the children of the deceased, but, if there shall be no children, the whole shall go to the husband or widow, and if there is no husband or widow, to the heirs, according to the law regulating the distribution of intestate personal estate. Every action brought upon this section, and every action brought against any railroad company for injuries received, shall take precedence of all other civil cases, in any court in this state ; but no such action shall be tried before the second term of the court

Damages for loss  
of life from negli-  
gence of compa-  
ny, &c.

Actions against  
railroad compa-  
nies, when to  
take precedence.



before which it may be pending, and may be further continued by such court for cause.\*

Corporation to  
give notice to  
commissioners of  
accidents, &c.

SECT. 545. Every railroad company shall within twenty-four hours after the occurrence of any accident, attended with serious personal injury, give notice of the same to the railroad commissioners, in writing, who, upon receiving such notice, or upon public rumor of such accident, may repair, or dispatch one of their board, to the scene of said accident, and inquire into the facts and circumstances thereof; and any such company, neglecting or willfully omitting to give the notice aforesaid, shall be liable to a penalty of one hundred dollars for every day that such neglect or omission shall continue; and the commissioners shall, without charge, furnished any person injured, or the friends of any person killed, any information they may have acquired in relation to any disaster, and the names of the persons from whom the same was obtained, or by whom the same may be proved.

1865.  
Time within  
which certain  
suits to be  
brought, limited.

SECT. 546. All suits or prosecutions, for any violation of the provisions of the four hundred and seventieth, four hundred and seventy-second, five hundred and thirty-eighth, five hundred and thirty-ninth, five hundred and forty-first, five hundred and forty-second, five hundred and forty-third, five hundred and forty-fourth, and five hundred and forty-fifth sections of this act, shall be commenced within one year after the cause of action shall have arisen.

*In addition, July 19th, 1867.*

Limitation of ac-  
tion for damages  
for loss of life  
from negligence  
of railroad com-  
panies.

SECT. 1. No suit shall be hereafter brought or maintained under or upon the five hundred and forty-fourth section of the act to which this act is in addition, unless the same shall be commenced within eighteen months from and after the death of the person whose life has been or may be hereafter destroyed in the manner described in said section. *Provided, however,* that in all cases where death has resulted from any of the causes mentioned in said section and the remedy therefor is not barred by the statute of limita-

Proviso.

\* Insurance Company cannot recover of railroad Company for money paid for loss of life caused by negligence. Conn. Mutual Life Ins. Co. v. N. Y. & N. H. Railroad Co., 25 C. R. 265.

tions, suits may be brought under said section to recover the damages mentioned in said section at any time within six months from and after the time this act goes into operation, although more than eighteen months may have elapsed since the time of such death.

SECT. 2. All acts and parts of acts inconsistent herewith are hereby repealed. Repeal.

SECT. 3. This act shall not affect any suit now pending. Not to affect pending suits.

*In addition, July 27th, 1867.*

SECT. 1. The governor of this state is hereby authorized and empowered, upon the application of any railroad or steamboat company located in this state, to appoint, from time to time, as he may deem necessary, one or more persons who may be designated by such company, to act as policemen upon the premises, cars or vessels of such company; and he shall issue to every person so appointed, a commission to act as such policeman. Railroad and steamboat police.

SECT. 2. Every policeman so appointed shall, before entering upon the duties of his office, take and subscribe the oath contained in the tenth article of the constitution, which oath, so subscribed, with a copy of his commission, he shall file with the secretary of state, and a certificate that the same has been so filed, shall be lodged by the said secretary with the clerk of each county within which it is intended that the said policeman shall act; and it shall be lawful for such policeman, and it shall be their duty, to arrest without previous complaint or warrant, all such persons as are guilty of drunkenness, profane swearing, Sabbath-breaking, vagrancy, disorderly conduct, tumultuous and offensive carriage, breaches of the peace, assaults and other offenses, when such offenses shall be committed upon the premises, cars or vessels of the railroad or steamboat company for which such policeman shall have been appointed respectively; and such offenders shall be taken in the act or on speedy information of others; and it shall be lawful for any justice of the peace in the county in which such offense may be committed, to proceed to trial and to render judgment without previous complaint and warrant upon persons so Policeman to take oath. Their duty. Offenders, where and how tried.



arrested, in the same manner as if they had been arrested upon process issued by such justice; *provided*, that in all cases where exclusive jurisdiction of the offenses aforesaid is by law vested in police courts, when committed within certain limits, the said police courts shall continue to have such exclusive jurisdiction within said limits, and may exercise the same in the manner hereinbefore prescribed for justices of the peace; and appeals shall be allowed in trials for said offenses in the same manner, and to the same extent, as is now, or may be hereafter provided by law in such trials; *and provided further*, that no person arrested as aforesaid shall be taken for trial out of the town where the offense is committed, unless the offense is committed upon railroad cars propelled by steam, or steamboats when in motion.

Badge of policemen.

SECT. 2. Every such policeman shall, at all times when on duty, wear in plain view, a metallic shield, with the words "Railway Police," or "Steamboat Police," as the case may be, and the name of the company for which he is appointed inscribed thereon. The compensation of such policeman shall be paid by the companies for which they may be appointed respectively.

Their compensation.

How discharged from office.

SECT. 4. Whenever any such company shall no longer require the services of any policeman appointed as aforesaid, they shall file a notice to that effect with the secretary of state and the clerks of the several counties in whose offices the certificates hereinbefore provided for were originally filed, and thereupon the authority of such policeman shall cease.

*In addition, July 8th, 1870.*

Railroad companies to require security from contractors for the payment of laborers, and company to be liable to the laborers employed.

Every railroad company in this state in making contracts for the building of its road shall require sufficient security from the contractors for the payment of all labor thereafter performed in constructing the road of such company by persons in their employ, and such company shall be liable to the laborers employed for labor actually performed on the road: but such liability shall not exist unless the person having such claims shall in writing notify the treasurer of said company that he has not been paid by the contractors, within twenty days after the completion of such labor.

## A.

## RETURN OF THE

## RAILROAD.

- 1 Capital stock,
- 2 Increase of capital since last report,
- 3 Capital paid in, per last report.
- 4 Capital paid in, since last report.
- 5 Total amount of capital stock paid in,
- 6 Funded debt, per last report,
- 7 Funded debt, paid since last report,
- 8 Funded debt, increase of, since last report,
- 9 Total present amount of funded debt,
- 10 Floating debt, per last report,
- 11 Floating debt, paid since last report,
- 12 Floating debt, increase of, since last report,
- 13 Total present amount of floating debt,
- 14 Total present amount of funded and floating debt,
- 15 Average rate of interest per annum, paid during the year.

## COST OF ROAD AND EQUIPMENTS.

- 1 For graduation and masonry, per last report,
- 2 For graduation and masonry, paid during the past year,
- 3 Total amount expended for graduation and masonry,
- 4 For wooden bridges, per last report,
- 5 For wooden bridges, paid during the last year,
- 6 Total amount expended for wooden bridges,
- 7 Total amount expended for iron bridges, (if any,)
- 8 For superstructure, including iron, per last report,
- 9 For superstructure, including iron, paid during the past year,
- 10 Total amount expended for superstructure, including iron,
- 11 For stations, buildings and fixtures, per last report,
- 12 For stations, buildings and fixtures, paid during the past year,
- 13 Total amount expended for stations, buildings, and fixtures,
- 14 For land, land damages, and fences, per last report,
- 15 For land, land damages, and fences, paid during the past year,
- 16 Total amount expended for land, land damages, and fences,
- 17 For locomotives, per last report,
- 18 For locomotives, paid during the past year,
- 19 Total amount expended for locomotives,
- 20 For passenger and baggage cars, per last report,
- 21 For passenger and baggage cars, paid during the past year,
- 22 Total amount expended for passenger and baggage cars,



- 23 For merchandise cars, per last report,
- 24 For merchandise cars, paid during the past year,
- 25 Total amount expended for merchandise cars,
- 26 For engineering, per last report,
- 27 For engineering, paid during the past year,
- 28 Total amount expended for engineering,
- 29 For agencies, and other expenses, per last report,
- 30 For agencies, and other expenses, paid during the past year.
- 31 Total amount expended for agencies, and other expenses,
- 32 Total cost of road and equipments,

## CHARACTERISTICS OF ROAD.

- 1 Length of road,
- 2 Length of single main track,
- 3 Length of double main track,
- 4 Length of branches owned by the company, stating whether they have a single or double track,
- 5 Aggregate length of sidings, and other tracks, excepting main track and branches,
- 6 Weight of rail, per yard, in main road,
- 7 Weight of rail, per yard, in branch roads,
- 8 Specify the different weights, per yard,
- 9 Maximum grade, with its length, in main road,
- 10 Maximum grade, with its length, in branch roads,
- 11 Total rise and fall in main road,
- 12 Total rise and fall in branch roads,
- 13 Shortest radius of curvature, with length of curve in main road,
- 14 Shortest radius of curvature, with length of curve in branch roads,
- 15 Total degrees of curvature in main road,
- 16 Total degrees of curvature in branch roads,
- 17 Total length of straight line in main road,
- 18 Total length of straight line in branches,
- 19 Aggregate length of wooden truss bridges,
- 20 Aggregate length of all other wooden bridges,
- 21 Aggregate length of iron bridges,
- 22 Whole length of road unfinished on both sides,
- 23 Number of public ways crossed at grade,
- 24 Number of railroads crossed at grade,
- 25 Remarks,
- 26 Way stations for express trains,
- 27 Way stations for accommodation trains,
- 28 Flag stations,
- 29 Whole number of way stations,
- 30 Whole number of flag stations,

## DOINGS DURING THE YEAR.

- 1 Miles run by passenger trains,
- 2 Miles run by freight trains,
- 3 Miles run by other trains,
- 4 Total miles run,
- 5 Number of passengers carried in cars,
- 6 Number of passengers carried one mile,
- 7 Number of tons of merchandise carried in cars,
- 8 Number of tons of merchandise carried one mile,
- 9 Number of passengers carried one mile, to and from other roads,
- 10 Number of tons carried one mile, to and from other roads,
- 11 Rate of speed adopted for express passenger trains, including stops,
- 12 Average rate of speed actually attained by express passenger trains, including stops and detentions,
- 13 Rate of speed adopted for accommodation trains,
- 14 Rate of speed actually attained by accommodation trains, including stops and detentions,
- 15 Average rate of speed adopted for freight trains, including stops and detentions,
- 16 Estimated weight, in tons, of passenger cars, (not including passengers,) hauled one mile,
- 17 Estimated weight, in tons, of merchandise cars, (not including freight,) hauled one mile,

## EXPENDITURES FOR WORKING THE ROAD.

- 1 For repairs of road, maintenance of way, exclusive of wooden bridges, and renewals of iron,
- 2 Repair of wooden bridges,
- 3 For renewals of iron, including laying down, } Total,
- 4 For wages of switchmen, average per month, }
- 5 For wages of gate-keeper, average per month, }
- 6 For wages of signal-men, average per month, }
- 7 For wages of watchmen, average per month, }
- 8 Number of men employed, exclusive of those engaged in construction,
- 9 For removing ice and snow, (this item to include all labor, tools, repairs, and extra steam power used,)
- 10 For repairs of fences, gates, houses for signal-men, gate-keepers, switch-men, tool-houses,
- 11 Total for maintenance of way,
- 12 Loss and damage of goods and baggage,
- 13 Damages for injuries to persons,
- 14 Damages to property, including damages by fire,
- 15 Damages for cattle killed on road,

## MOTIVE POWER AND CARS.

- 1 For repairs of locomotives,
- 2 For new locomotives to cover depreciation,
- 3 For repairs of passenger cars,
- 4 For new passenger cars to cover depreciation,
- 5 For repairs on merchandise cars,
- 6 For new merchandise cars to cover depreciation,
- 7 For repairs of gravel and other cars,
- 8 Total for maintenance of motive power and cars,
- 9 Number of engines,
- 10 Number of passenger cars,
- 11 Number of baggage cars,
- 12 Number of merchandise cars,
- 13 Number of gravel cars,

## MISCELLANEOUS.

- 1 List of accidents to persons,
- 2 List of accidents to cattle, and amount paid for each,
- 3 For fuel used by engines during the year, viz:
- 4 Wood,
- 5 Coal,
- 6 For oil used by cars and engines,
- 7 For waste and other materials for cleaning,
- 8 For salaries, wages, and incidental expenses chargeable to passenger department,
- 9 For salaries, wages, and incidental expenses chargeable to freight department,
- 10 For gratuities and damages,
- 11 For taxes and insurance,
- 12 For ferries,
- 13 For repairs of station buildings, aqueducts, fixtures, furniture,
- 14 For interest,
- 15 For amount paid other companies, in tolls, for passengers and freight carried on their roads, specifying each company,
- 16 For amount paid other companies for the use of their roads, specifying each company,
- 17 For salaries of president, treasurer, superintendent, law expenses, office expenses of the above officers, and all other expenses not included in any of the foregoing items,
- 18 Total expenditures for working the road,
- 19 List of accidents to operatives and employees on the road, and the amount of damage, if any, paid to each case, naming each individual thus injured.



## INCOME DURING THE YEAR.

- 1 FOR PASSENGERS :
  - 1 On main road, including branches owned by company
  - 2 To and from other roads, specifying what,
- 2 FOR FREIGHT :
  - 1 On main road and branches owned by company,
  - 2 To and from connecting roads,
  - 3 U. S. Mails,
  - 4 Rents,
  - 5 Total income,
  - 6 Net earnings, after deducting expenses,

## DIVIDENDS.

- 1        per ct. total,
- 2 Surplus not divided,
- 3 Surplus last year,
- 4 Total surplus,

## ESTIMATED DEPRECIATION BEYOND THE RENEWALS, VIZ.

- 1 Roads and bridges,
- 2 Buildings,
- 3 Engines and cars,

## AN ACT CONCERNING CRIMES AND PUNISHMENTS.

SECT. 85. Every person who shall willfully and maliciously impair, injure, or destroy any engine, carriage, or car, belonging to any railroad company, or who shall willfully and maliciously displace any switch upon any railroad, shall be punished by a fine not exceeding one hundred and fifty dollars, or by imprisonment in a common jail not exceeding one year, or by such fine and imprisonment both.

Injuring railroad engines, &c.

SECT. 192. Every president, director, Secretary, treasurer, book-keeper, conductor, clerk or agent of any railroad company incorporated by au-

1853.  
Embezzlement of funds of railroad company, and making false entries.



thority of this State, who, while in the employment of such railroad company, shall take, purloin, secrete, or in any way appropriate to his use, or to the use of others, any of the moneys, coins, bills, notes, credits, or other choses in action, belonging to, or deposited with such railroad company, with intent to defraud and prejudice any person or persons, or body politic or corporate, or who shall falsely make any entries of moneys, coins, bills, notes, credits, or other choses in action, in or upon any of the books of such railroad company, with intent to defraud and prejudice any person or body politic or corporate, shall suffer imprisonment in the Connecticut state prison, for a term not less than two, nor more than ten years.

*In addition, June 30th, 1866.*

Nuisances on  
railroad tracks  
or in depots pro-  
hibited.

SECT. 1. No person shall cast, empty, or discharge, or cause, suffer, or permit to be cast, emptied, or discharged, upon or into that part of any railroad or railroad depot situated within the limits of any incorporated city in this state, any filth or rubbish, any foul or offensive wash or water, or the contents of any privy, vault, cess-pool, or sewer.

Penalty.

SECT. 2. Every person who shall violate any of the provisions of this act, shall for each violation be punished by a fine not exceeding fifty dollars, one-half to go to the person furnishing the proper officer information that leads to a conviction; *provided*, that no person who now empties or discharges any sewer into or upon any such railroad or depot, by virtue of a permission so to do from the proper authorities of the city wherein the same is done, shall for that cause be liable to said penalty until the expiration of three months after the passage of this act.

Proviso

#### AN ACT FOR THE REGULATION OF CIVIL ACTIONS.

1857.  
Owner of railroad  
bond may sue in  
his own name.

SECT. 63. The bona fide owner and holder of a railroad bond may bring any proper action, in his own name, for the recovery of whatever may be due thereon.

1840.  
What prima facie  
evidence of injury  
by fire on rail-  
road.

SECT. 169. In all actions against any person, or against any incorporated company, for the recovery of damages on account of any injury to any property, whether real or personal, occasioned by fire

communicated by any locomotive engine while upon or passing along any railroad in this state, the fact that such fire was so communicated, shall be full prima facie evidence, to charge with negligence the person, or corporation, who shall, at the time of such injury by fire, be in the use and occupation of such railroad, either as owner, lessee or mortgagee, and also those who shall, at such time, have the care and management of such engine, unless such person or corporation shall show that no negligence was, at such time, justly chargeable to them or to those in their employment.

SECT. 247. The levy of execution on the equitable right or interest which any railroad corporation may have in the whole, or any part of the real estate, right of way, or road bed, of any other railroad corporation, together with the income, rents, and profits which may be due or coming due thereon, shall be by leaving a true and attested copy thereof, with the treasurer, secretary or clerk of said last named railroad corporation, with an attested certificate by the officer making such levy, that he levies upon and takes such right of interest to satisfy such execution; and thereupon such officer shall post the same upon some sign-post in the town where such last named railroad corporation has its office or principal place of business in this state, and, as in cases of personal property, shall, at vendue, sell the same, together with such income, rents, and profits, or so much of them as shall be sufficient to satisfy said execution; and such officer shall thereupon give to the purchaser an instrument in writing, conveying to him such right and interest, and shall also leave with such treasurer, secretary or clerk, a true and attested copy of such execution and of his return thereon; and the purchaser shall thereupon become entitled to said right and interest, and to all rents, profits, and income thereon as such debtor was entitled to.

1856.  
Levy of execution  
on property of  
railroad compa-  
ny, how made.

#### AN ACT RELATING TO THE GENERAL ASSEMBLY.

SECT. 12. No petition for the incorporation of a railroad company, or horse railroad company, shall be heard by the general assembly, unless public notice shall have been given, by advertisement, in some newspaper published in the county where such railroad, or horse railroad, or some part thereof,

1849. 1865.  
Notice of petition  
for incorporation  
of railroad com-  
pany and horse  
railroad company  
to be advertised.



To be accompanied by report of engineer.

is proposed to be located, or, if there be no newspaper published in such county, then in a newspaper published in an adjoining county, at least three weeks before the first day of the session in which such hearing is to be had, designating the intended route of such railroad, and the street, or streets, highway, or highways, and other intended route of such horse railroad, with such certainty as to give reasonable notice to all persons interested therein, that their rights may be affected by the granting of said petition, and that they may have an opportunity to appear and object thereto; nor unless the petition for such railroad, other than a horse railroad, is accompanied and supported by the report of a skillful engineer, founded on actual examination of the route, and by other proper evidence, showing the character of the soil, the manner in which it is proposed to construct such railroad, the general profile of the surface of the country through which it is proposed to be made, the feasibility of the route, and an estimate of the probable expense of constructing the same.

Railroads to be confined to the limits notified.

SECT. 13. Every act of incorporation of a railroad company shall confine the road within the limits indicated by the notice required in the preceding section shall specify the several towns, and, in case of a horse railroad; the street, or streets, highway, or highways, through which the same may pass, and shall otherwise designate the route on which the respective roads may be authorized to be made, with as much certainty as the nature of the case will admit.

1844.  
Notice of petitions for incorporation of canal companies, and for alteration of canal and railroad companies to be published.

SECT. 14. No petition for the incorporation of a canal company, or for an alteration in the charter of any such company, or of any railroad company, shall be heard by the general assembly, unless public notice thereof shall have been given, by advertisement, setting forth the route, as near as may be of such proposed canal, or the proposed alteration of such charter, in some newspaper, published in the county where such railroad, or canal, or some part thereof is located, or where such canal or some part thereof is proposed to be located, or, if there be no newspaper published in such county, then in a newspaper published in an adjoining county, at least three weeks before the first day of the session in which such hearing is to be had.

AN ACT FOR THE ASSESSMENT AND COLLECTION OF  
TAXES.

SECT. 45. The secretaries, or treasurers, of the several railroad companies, and horse railroad companies, which have been, or may hereafter be, incorporated in this state, shall, within the first ten days of October in each year make out, under oath, and deliver, to the comptroller of public accounts, full and true lists or statements of the number of shares of stock in their respective companies, the amount of their funded and floating debt, the amount of cash on hand, the true market value of each share of stock, and of their funded and floating indebtedness on the first day of the month in which such lists or statements are herein required to be made, the whole length of their respective roads, and the length of those portions thereof, if any there are, lying without this state.

Railroad and horse railroad companies to make returns, in October, to the comptroller, of the value of their stock, and funded and floating debt, &c.

SECT. 46. Each of such railroad companies shall, on or before the twentieth day of October, in each year, pay, or cause to be paid, to the treasurer of this state, for the use of this state, a sum equal to one per cent. of the market value of the stock, and of the funded and floating debt of such company, whether the stock and debt of such railroad company, or horse railroad company, is owned by persons residing in this state or elsewhere, first deducting from such valuation, the amount of cash actually on hand; which valuation so made, and approved, or amended by the board of equalization, shall be regarded as fixing the basis or measure of value of such railroad and horse railroad, their rights, franchises, and property within the state, for the purposes of taxation; and this sum, or tax, shall take the place, and be in lieu, of all other taxes on railroads and horse railroad property, and franchises, within this state; but when a railroad lies partly within this state, and partly within some adjoining state, or states, there shall be paid only such proportion of the per centage herein required to be paid by said companies, respectively, on the value of such railroad property, estimated as aforesaid, as the length of that portion of the road, which lies within this state, bears to the whole length of the road; and when any

Amount of tax to be paid by railroad and horse railroad companies.

When railroad lies partly without the state, tax to be reduced proportionally.



Parties in possession of, or operating, any road, as trustee, &c., to be liable for the tax.

tax, hereby imposed upon the property and franchises of any railroad company, or horse railroad company, becomes due, and such company shall not then be in the possession, and have the management and control of its road, or the road bearing its name, each and every person, railroad company, or corporation, then owning, possessing, operating, or having the management and control of such railroad, or horse railroad, either as trustee, assignee, agent, or lessee, shall be liable, and is hereby required to pay such tax, or cause it to be paid, to the treasurer of this state, for the use of the state, within the time prescribed by this act, for the payment of the same.

*In addition, July 27th, 1867.*

Tax on railroad property and indebtedness.

SECT. 1. That the tax imposed in section forty-six, Chapter I, title LXIV, of an act entitled "An Act for the Assessment and Collection of Taxes," shall take the place and be in lieu of all other taxes on railroad and horse railroad property, franchises, funded and floating debts within this state.

Repeal.

SECT. 2. All acts and parts of acts inconsistent herewith are hereby repealed.

*In addition, July 24th, 1868.*

Tax on railroad property and indebtedness.

That Chapter XL of the Public Acts passed May Session, A. D. 1867, shall not apply to any railroad or horse railroad property not used for railroad purposes; *provided*, that all real estate owned by railroad or horse railroad companies, not used for railroad purposes, located in this state, may be deducted from the market value of the stock of such companies in their return to the comptroller of this state.

1862.

Persons or corporations operating railroads, as lessees, may deduct the amount of tax paid, from payments due lessors.

SECT. 47. Whenever any person, company, or corporation, owning, possessing, operating, or having the management and control of any railroad, or horse railroad, as the lessee thereof, under or by virtue of any contract, or lease, existing on the tenth day of July, 1862, shall have paid, to the treasurer of the state, the tax required to be paid

by such lessee, by the provisions of the next preceding section of this act, such payment shall be deemed and considered to be made on account of the lessor of said railroad, on horse railroad, and the amount thereof may be deducted and withheld from any payments due, or to become due, to such lessor on account of such contract or lease.

SECT. 55. The board of equalization shall examine, and amend, or correct, all lists and statements returned to the comptroller of public accounts, as required by the eleven preceding sections of this act, in such manner as they may deem just and equitable ; and in case any person shall fail to make such return, within the time, and in the manner prescribed, or shall, in the opinion of the board of equalization, make erroneous returns, said board shall, within ten days after the time limited for making such returns, make out upon the best information which they can obtain, the statement or list required to be made, and returned by the person so failing, or making such erroneous return ; and a true copy of each list and statement, as amended, corrected, approved or made out by said board of equalization, shall be by them returned to each respective cashier, treasurer, secretary, superintendent, manager, agent, auctioneer, or clerk, by mail or otherwise ; and the decision by said board of equalization shall be final and conclusive as to the value and amount of any of said deposits, stocks, property, receipts and collections, sales, and number of messages, upon which the respective taxes are to be paid.

Board of equalization shall amend and correct lists and statements.

SECT. 56. If any person shall fail to make out and return to the comptroller of public accounts, within the time and in the manner prescribed in the twelve preceding sections of this act, any list or statement therein required to be made and so returned ; such person shall, for each failure, forfeit to the treasurer of this state, for the use of this state, the sum of five hundred dollars, to be recovered in the name of the treasurer by action on this statute ; and if any person, association, company, or corporation, required by such sections to make any payment to the treasurer of this state, shall fail to make, within the time therein limited, the payment so required, such person, association, company, or corporation, shall, for each failure,

Forfeiture for neglect to make returns and pay tax.

forfeit to the treasurer of this state a sum equal to twice the amount of the tax therein imposed upon such person, company, association, or corporation, to be recovered, in the name of the treasurer, by action on this statute.

AN ACT FOR THE SETTLEMENT OF ESTATES TESTATE,  
INTESTATE, AND INSOLVENT.

1858.  
Trustee may re-  
lease interest of  
railroad corpora-  
tion, when.

SECT. 115. The trustee of any railroad corporation, whose estate is in settlement as an insolvent estate, may, if the assets of such estate shall not otherwise be sufficient to pay the claims allowed by the commissioners, and the expenses of settling the estate, release to the proprietors of the land over which such corporation may have a right of way, or an encumbrance for other purposes connected with such railroad, upon such terms as shall be approved by the court of probate, but nothing contained in this section shall in any way affect any right, or lien, existing prior to the appointment of such trustee.

AN ACT CONCERNING LANDS.

1846.  
Right to land  
within limits of  
railroad or canal  
not to be gained  
by adverse pos-  
session.

SECT. 29. If the owner or occupant of any land adjoining any railroad or canal in this state, has, since the tenth day of June, one thousand eight hundred and thirty-one, taken, or shall take into, his enclosure any part of the land belonging to said railroad or canal, as located and established, or since that time, has erected, or shall erect, any building upon any land belonging to any such railroad or canal as aforesaid, no continuance of such enclosure or building, or length of possession of the land belonging to such railroad or canal, so enclosed or built upon, shall create in such owner, or occupant, or in any person claiming under him, any right to the land belonging to such railroad or canal, so enclosed or built upon.



AN ACT FOR THE ASSESSMENT AND COLLECTION OF  
TAXES.*In addition, June 10th, 1869.*

That all bonds issued or which may be issued by any town or city in aid of the construction of the railroads of "The Connecticut Western Railroad Company," the "New Haven, Middletown, and Willimantic Railroad Company," the "Shepaug Valley Railroad Company," and "The Connecticut Valley Railroad Company," and either of them in pursuance of legal votes of such town or city as authorized or ratified by the legislature of this state, and all bonds issued, or which may be issued by any town or city to provide or raise money to pay for stock subscribed by such town or city in any of the said railroad corporations in this state, in pursuance of legal votes of such town or city authorized or ratified as aforesaid, shall be exempt from taxation in the hands of the holders of such bonds; *provided*, that whenever the avails of such bonds or stock shall have been expended in the construction of the railroads of said corporations respectively, such railroad corporations shall pay a tax of one per cent. to the treasurer of this state upon the amount of such bonds issued by any town or city in aid of the construction of such railroad as aforesaid, whether such bonds are owned by persons or corporations in this state or elsewhere, and upon the amount of stock subscribed by any town or city in any of the said railroad corporations as aforesaid.

Bonds of towns or cities in aid of certain railroads exempt from taxation.

Proviso.

## AN ACT CONCERNING COMMUNITIES AND CORPORATIONS.

*In addition, July 8th, 1869.*

SECT. 1. Every railroad company shall construct and maintain good and sufficient railings or fences on one or both sides of its road, when the same runs within the limits of any public highway or turnpike road, or adjoining thereto, whenever such railings or fences are necessary for the safety of persons or property passing over such highway or

Railroad companies to maintain sufficient fences where their road runs within the limits of or adjoins a public highway.



turnpike; and if any person shall suffer any damage in his person or property by reason of the neglect of any railroad company in the premises, such railroad company shall pay to him just damages.

Damages in case of loss of life by neglect to maintain fence.

SECT. 2. If the life of any person travelling or being upon any public highway or turnpike, in the exercise of reasonable care, shall be lost by reason of the neglect of any railroad company to construct and keep in good order all necessary railings or fences as required by the foregoing section, such railroad company shall be liable to pay damages, not exceeding five thousand dollars, to the use of the executor or administrator of the deceased person, to be recovered by such executor or administrator in an action on the case upon this statute, for the benefit of the husband or widow and heirs of the deceased person, one moiety thereof to go to the husband or widow, and the other to the children of the deceased; but if there shall be no children, the whole shall go to the husband or widow, and if there is no husband or widow, to the heirs, according to the law regulating the distribution of intestate personal estate.

Distribution of sum recovered.

Repeal.

SECT. 3. All acts or parts of acts inconsistent herewith are hereby repealed.

*In addition, July 8th, 1869.*

Railroad companies may make contracts with one another leases of franchises, &c.

SECT. 1. Any railroad company in this state may make any contract not forbidden by law with any other railroad company, with whose railroad its own railroad may connect or intersect, in relation to the business or property of either of said companies; may take a lease of the property and franchises of, or lease its property and franchises to any such railroad company, or may operate its railroad in connection with any such company, and all such leases and contracts heretofore made are hereby ratified and confirmed; *provided*, that nothing in this act shall be so construed as to authorize the merger or consolidation of the stock of any railroad companies.

Leases and contracts heretofore made validated.  
Consolidation of companies not authorized.

Power of general assembly to regu-

SECT. 2. Nothing in this act shall be construed to limit or take away any rights or powers of the

general assembly, to pass any law regulating the charges for carrying freight or passengers on any such railroad or connecting railroads, or regulating the number or the running trains, or in reference to the franchise or business of such railroads.

late charges of freight or passage, running of trains, &c.

*In addition, July 9th, 1869.*

Every person who shall commit any nuisance or upon any railroad bridge in this state, shall be punished by a fine not exceeding seven dollars, or by imprisonment in a common jail not exceeding thirty days, or by such fine and imprisonment both.

Penalty for committing nuisances on railroad bridges.

#### AN ACT CONCERNING ROADS AND BRIDGES.

*In addition, July 10th, 1869.*

SECT. 1. That no town shall be liable to any suit or action for an injury received on any highway in such town by reason of any structure placed in said highway by any railroad corporation by authority of law, but such damage may be recovered in a suit against said railroad company.

Towns not liable for injuries done by reason of acts of railroad corporations.

SECT. 2. This act shall not affect any suit now pending.

Not to affect pending suits.

#### AN ACT CONCERNING COMMUNITIES AND CORPORATIONS.

*In addition, July 9th, 1869.*

That all highway bridges hereafter constructed over any railroad track in this state shall be so constructed that the bottom timbers of the bridge shall be not less than eighteen feet above the top of the rail in the railroad track; and that all covered bridges constructed on the line of any railroad shall be not less than eighteen feet in height from the top surface of the rail laid in the track on the bridge to the under side of the cross beams overhead.

Construction of bridges over railroad tracks regulated.

That section five hundred thirty-eight, of the act concerning communities and corporations, of the general statutes, be and is hereby amended by

Regulating the stoppage of railroad trains before draw-bridges or railroad crossings.

striking out the word "passenger;" also by striking out the words "one thousand feet," and inserting in lieu thereof the words "eight hundred feet."

*In addition, July 9th, 1869.*

Who may vote on shares of railroad stock subscribed for by towns.

That the agent, appointed by any town in this state, to subscribe for stock in any railroad, shall have power to vote on the shares of stock subscribed for by him in all meetings of the stockholders of such railroad, unless such town shall otherwise direct.

Willful injury to personal baggage, how punished.

That any baggage-master, express agent, stage-driver, hackman or other person, whose duty it is to handle, remove or take care of the baggage of passengers, who shall willfully or wantonly injure or destroy any trunk, valise, box, package, or parcel, while loading, transporting, unloading, delivering, or storing the same, shall be punished by a fine not exceeding fifty dollars, one-half to go to the complainant.

Regulating appeals from action of railroad commissioners, authorizing the crossing of non-navigable streams.

SECT. 1. Whenever any railroad company shall be permitted, or authorized by the railroad commissioners, to cross or intersect any stream of water, or water course, not navigable, or pond of water, and, in the opinion of any person interested in such stream of water, water course, or pond, said intersection or crossing will impair the usefulness of such stream, water course, or pond, as a water power, or endanger the safety of the public, or that said stream will not be restored to its former state of safety, by reason of embankments, filling or bridge piers, permitted or allowed by said commissioners, an appeal shall be allowed to such interested person aggrieved by such layout or permission, to any judge of the superior court, within twenty days after the owners of the land adjoining said stream, at the point of said intersection, or crossing, shall have had actual notice of the manner in which the said commissioners have permitted said stream to be crossed. Which appeal shall be by a suitable petition, in writing, for a hearing in regard to said claims of



said petitioner, and the property of said manner of crossing said stream, with a citation attached thereto, and returnable in not less than eight nor more than twelve days after its date, and served, at least five days before the return day, upon such railroad company. And said judge shall have, for the purpose of disposing of said appeal, all the powers of the superior court, and may proceed, by himself or by committee, to a hearing in regard to said claim or claims, and the propriety of said manner of crossing said stream, water course, or pond, and may render a decree, either establishing more and sufficient water way at the place of crossing or intersection of such stream, water course, or pond, or providing such method of crossing that the usefulness and safety of said stream may be preserved, and that the safety of the public may not be endangered, or confirming said method of lay-out. And if said alteration is so decreed, award costs against said railroad company; and if said lay-out or permitted mode of crossing or intersection is confirmed, award costs against the petitioners, and issue execution in favor of either party for costs, to be taxed as upon civil process in the superior court. Said appeal shall be a supersedeas, so far as said crossing or intersection is concerned, until judgment shall be rendered thereon by said judge of the superior court.

Award of costs.

Appeal to be a supersedeas.

SECT. 2. This act shall take effect from and after its passage.

When to take effect.

#### AN ACT CONCERNING COMMUNITIES AND CORPORATIONS.

*In addition, July 21st, 1870.*

SECT. 1. No highway or public street of any kind shall hereafter be laid out or constructed across any railroad in this state upon a level therewith, except under authority and permission in writing from the general railroad commissioners.

Lay out of highways across railroads.

SECT. 2. The town, city, borough, or other party proposing to so lay out or construct any highway or other public street, shall, before doing the same, notify said commissioners in writing of such proposed action, and thereupon it shall be the

Notice of proposed lay out to be given to railroad commissioners.



duty of said commissioners to give to said town, city, borough, or party, and to the company whose railroad it is so proposed to cross as aforesaid, reasonable notice in writing, of the time and place when and where they may be heard in reference to said proposed crossing upon a level; and in case they allow said crossing, then said lay out and construction may be proceeded with in the same manner in all respects as if this act had not been passed.

Expense of such crossing how borne.

SECT. 3. If said commissioners shall disallow said proposed lay out or construction upon a level with said railroad, then they shall further determine whether said highway or other public street shall cross over or under said railroad; and one-half of the expense of said crossing over or under, as the case may be, shall be borne by said railroad company, and such railroad company, upon the completion of said highway or street, including such crossing, shall pay over the same to the party entitled thereto.

Expense of maintaining bridge at crossing.

SECT. 4. If said highway or street shall cross over said railroad, the bridge or other structure necessary therefor, shall be maintained and kept in repair by the party chargeable by law with the maintenance of said highway or street; but if said highway or street shall cross under said railroad, the railroad bridge necessary therefor shall be maintained and kept in repair by said railroad company.

Fees.

SECT. 5. The fees of said commissioners under this act shall be the same as now provided by law for other service by them, and shall be paid by the parties in interest, in equal proportions.

#### AN ACT RELATING TO THE CROSSING OF THE NAUGATUC RAILROAD AND THE NAUGATUC RIVER BY THE NEW HAVEN AND DERBY RAILROAD COMPANY.

Lay out of N. H. and Derby R. R. approved.

SECT. 1. The location and lay-out of the railroad of the New Haven and Derby Railroad Company across the Naugatuc Railroad and the Naugatuc River, and the flats and meadows adjacent thereto, as the said location and lay-out have been recently approved in writing by the railroad commissioners, are hereby approved and confirmed; and the New Haven and Derby Rail-

road Company are hereby authorized to construct their railroad and their proposed bridge across said river, and flats and meadows, upon the route and in the manner prescribed and provided in and by the said written approval so made by the railroad commissioners.

SECT. 2. The New Haven and Derby Railroad Company shall, at all times, at their own exclusive expense, provide, at the point of the intersection of their railroad with the Naugatuc Railroad, such means of preventing collisions and accidents, by flag-men or otherwise, as may be required by the railroad commissioners, or by law, for that purpose.

Prevention of accidents at intersection of roads.

SECT. 3. This act shall take effect from its passage.

Approved, July 5th, 1870.

AN ACT FOR THE PROTECTION OF THE BRIDGE OF THE SHORE LINE RAILWAY OVER CONNECTICUT RIVER.

*Whereas* the bridge of the Shore Line Railway over Connecticut River is nearly completed; and *whereas* it is found that the piers of said bridge, if left without suitable support, will be insecure and liable to be undermined and swept away; and *whereas* the right of the Shore Line Railway to make said piers secure, by ballasting or otherwise, is called in question; and *whereas*, for the safety of the public, it is necessary that said piers and bridge should be made, and at all times kept, absolutely safe and secure; therefore, —

SECT. 1. The Shore Line Railway is hereby authorized to support and strengthen the piers of its bridge over Connecticut River, by depositing within, between and around the cylinders of said piers, and around said piers, from time to time, stone and ballast in such manner and in such quantities as may be necessary or useful in order to make said cylinders, piers, and bridge firm, safe, and secure; and said corporation is hereby authorized to do, from time to time, such work upon said bridge, piers, and cylinders as may be necessary or proper in order to maintain and keep said bridge, piers, and cylinders in a condition of safety

Shore line railway authorized to secure their bridge over Connecticut by deposit of stone around the piers.

and security: *Provided, however,* that said corporation shall not deposit stone or ballast around said piers at a height exceeding twelve feet from the natural bed of the river at the point where said stone or ballast comes in contact with said piers or cylinders, and, when so deposited, such stone or ballast shall be laid so as to form a slope from the highest point of such contact to the bed of the river, and not to extend laterally from said piers or cylinders in any direction to exceed eighteen feet: — *And provided further,* that within the draws of said bridge no stone or ballast shall be deposited or kept so as to reduce the depth of water at any point between the piers of said draws to less than twelve feet at any time.

SECT. 2. This act shall take effect from its passage.

Approved, July 15th, 1870.



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## APPENDIX.

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*Petitions received and decisions rendered by the Commissioners during the year.*

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Public enterprises are often opposed to the private plans and interests of individuals, and the action of public officers often misunderstood. It is hardly possible that any adjustment of disputed questions will prove satisfactory to all. In some cases the Commissioners have furnished to the press statements of the reasons for the course taken by them, which are presented in this appendix for general information, together with the entire official papers concerning some matters of public interest.

The following in regard to the location of a depot in Middlefield is given in addition to the statements made concerning the New Haven, Middletown, and Willimantic Railroad in the body of this report.

*Petition and decision concerning the location of a depot in Middlefield, on the New Haven, Middletown, and Willimantic Railroad.*

To the Hon. James Phelps, a Judge of the Superior Court of the State of Connecticut, residing at Essex, in Middlesex County in said State, the undersigned electors of the State of Connecticut, residing at Middlefield in said Middlesex County, would respectfully represent :

That the "New Haven, Middletown, and Willimantic Railroad Company," the said company being duly incorporated by the laws of this State, are at present constructing their line of railroad from New Haven in said State to the village of Willimantic in said State, and that a portion of the said line of railroad was through the said town of Middlefield.

And your petitioners would further represent, that the said railroad is unfinished and in process of construction, and the



said petitioners believe, and therefore aver, that the said railroad company ought for the reasonable accommodation of the public, to locate and establish a depot or station on the line of said railroad at or near the junction of the highways in said Middlefield, one of said highways leading to the North School District in said Middlefield, and the other of said highways leading to the Falls School District in said Middlefield. Your petitioners would represent that the point indicated herein, to wit, the junction of the said highways, is in close proximity to the three churches in the said town of Middlefield, and that the location of the said depot or station at or near the point indicated would better accommodate a larger number of the inhabitants of the said town of Middlefield than at any other point in said town.

They would also represent, that for the accommodation of the public the said railroad company ought to locate a station in said Middlefield in that section of the said town known as the Falls School District, the said station to be located near the residence of Ira N. Johnson.

And the said petitioners would further represent that they have reason to fear that the said company does not intend to locate and establish a depot or station at or near the points in said town indicated in this application. Your petitioners would therefore pray the Honorable Judge of the Superior Court to whom this application is made, to issue such order, and in all respects to proceed with this petition in conformity with the statute law of this State in such case made and provided, that your petitioners may have such relief, and be accorded such accommodation in this regard as they are entitled to by law.

Dated at Middlefield, this 14th day of April, 1870.

CORNELIUS HALL and others.

Upon the foregoing application being duly made to the undersigned, a Judge of the Superior Court, it is hereby *ordered*—

That a hearing in reference to the appointment of an engineer to act with the General Railroad Commissioners of this State in the location of a depot as prayed for in the fore-

going petition, will be held at my office in Essex, in the County of Middlesex, on the 28th day of May, A. D. 1870, at two o'clock in the afternoon, and that notice of the time and place of said hearing be given to the within named, the New Haven, Middletown, and Willimantic Railroad Company, by some proper officer leaving with the Secretary of said company a true and attested copy of the foregoing application and of this order, at least six days before the time appointed for said hearing.

Dated at Essex, this 18th day of May, A. D. 1870.

JAMES PHELPS,  
*A Judge of the Superior Court.*

MIDDLESEX COUNTY, SS.

MIDDLETOWN, May 22d, }  
At a quarter past nine o'clock in the evening, }  
A. D. 1870. }

Then and there by virtue hereof I left a true and attested copy of this petition, names attached thereto, and this order of notice, with and at the usual place of abode of O. Vincent Coffin, Secretary of the said New Haven, Middletown, and Willimantic Railroad Company.

(Attest,)

CURTIS BACON, *Constable.*

At an adjourned term of the Superior Court in and for Middlesex County, on the 31st day of May, 1870, held at Middletown in said County, present Hon. James Phelps holding said Court:—

Upon the foregoing application of Cornelius Hall and others, the said Judge at that time, the hearing upon said subject having been regularly adjourned from the 28th day of May, as set forth in the foregoing order, appointed John W. Bacon, of Danbury, an engineer to act with the Railroad Commissioners in the matters contained in the foregoing petition, in accordance with the statute law of the State in such case made and provided, and directed the undersigned, the Clerk of said Superior Court, to make the certificate of such appointment.

Dated at Middletown, this 31st day of May, 1870.

Signed and certified by

CHARLES G. R. VINAL,

*Clerk of the Superior Court in and for Middlesex County.*

Upon the application of Cornelius Hall and others, of the town of Middlefield, in the County of Middlesex and State of Connecticut, praying for the location of a depot or station on the line of the New Haven, Middletown, and Willimantic Railroad, in said town of Middlefield, it is hereby

*Ordered*, That the undersigned, Railroad Commissioners of the State of Connecticut, and John W. Bacon, an engineer duly appointed by Hon. James Phelps, a Judge of the Superior Court in and for said State, according to the statute in such case made and provided, will meet all parties in interest at the Conference House in said Middlefield, on Friday, the 8th day of July, A. D. 1870, at three o'clock in the afternoon, when and where a hearing will be had upon said application by said Board, and that notice of the time and place of said hearing be given by leaving a true and attested copy of this order at the office of the New Haven, Middletown, and Willimantic Railroad Company, in Middletown, in said Middlesex County, and by posting a like copy of said order on the sign post in said Middlefield, near the place appointed for said hearing, at least six days before the said 8th day of July, 1870.

Dated at Hartford, this 27th day of June, A. D. 1870.

ALBERT AUSTIN,	}	<i>Railroad Commissioners.</i>
JAMES PIKE,		
SIMEON GALLUP,		

JOHN W. BACON, *Engineer.*

MIDDLESEX COUNTY, SS.

MIDDLETOWN, June 28, 1870.

Then and there by virtue hereof I left a true and attested copy of this order of notice at the office of the New Haven, Middletown and Willimantic Railroad Company, in said town of Middletown, and on the same day of said June, at Middlefield, I left a like true and attested copy of this order on the



sign post in said Middlefield, by placing the same on said sign post, and nailing the same on said sign post.

(Attest,)

CURTIS BACON, *Constable.*

Upon the application of Cornelius Hall and others, of the town of Middlefield in Middlesex County, praying for the location of certain depots or stations in said Middlefield, on the line of the New Haven, Middletown, and Willimantic Railroad Company, the undersigned, Railroad Commissioners of the State of Connecticut, and John W. Bacon, an engineer duly appointed by Hon. James Phelps, a Judge of the Superior Court in and for said State, do hereby certify, that they proceeded on the 8th day of July, A. D. 1870, to fulfill their duties in the matter of said application, and met the parties and all interested at the Conference House in said Middlefield, at the time appointed, and heard all the testimony adduced upon said subject, and upon consideration do order that the part of said application praying for the location of a depot or station near the churches in said Middlefield, near the junction of the roads in said Middlefield, one of the said roads leading to the North School District in said Middlefield, and the other leading to the Falls District in said Middlefield, be not granted, and that that portion of said application praying for the location of a depot in the Falls District in said Middlefield, near the dwelling house of Ira N. Johnson, be granted, and that said Railroad Company be and they are hereby notified that the undersigned have and they do hereby locate and establish a depot or station at the highway crossing of said railroad, near the residence of Ira N. Johnson, and order the said Railroad Company thereafter to keep and maintain said station, at or near the point herein indicated.

Dated at Middletown, Conn., this 8th day of July, 1870.

JAMES PIKE,	}	<i>General</i>
SIMEON GALLUP,		<i>Railroad</i>
JOHN I. HUTCHINSON,		<i>Commissioners.</i>
		JOHN W. BACON, <i>Engineer.</i>

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## DAVID LYMAN.

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The death of Hon. David Lyman, President of the New Haven, Middletown, and Willimantic Railroad Company, was noticed in the report of that road. It will not be out of place here to pay more than a passing tribute to the memory of one so prominent in the railroad operations of this State. He lived in Middlefield, formerly a part of Middletown, which was set apart and incorporated a township by his instrumentality. In it he had built up an extensive manufacturing establishment for the Metropolitan Washing Machine Company, of which he was the first president, and which carried on a successful and very profitable business. He owned one of the largest farms in the State; a broad and beautiful landscape variegated with fertile fields and delightful groves, upon which all the appointments, arranged for beauty as well as utility, were in the most perfect order. He had filled various offices of trust and responsibility in the town in which he lived, and was well known and beloved for his various deeds of charity and benevolence.

Conspicuous in the project for bridging the Connecticut river, he was working for it as a necessary measure also in building the Air Line, which was to him a darling project. About five years ago, he applied to the Legislature to have its charter revived, and to his energy in carrying forward this work, the road owes its present measure of success. Against the strongest opposition to bridging the river, against financial difficulties seemingly insurmountable, and against all the minor difficulties and perplexities incident to the laying out and building of a new railroad, he labored successfully with a zeal which gained for him the admiration even of his opposers. Though worn out with incessant labor and activity, and advised by his physician and friends to remain at his home, only five days before his death he went to Middletown to complete arrangements with the officers of the Connecticut Valley



road for a union depot, which was the last business he accomplished. From this time his disease rapidly gained upon him, and on Tuesday, January 24th, while sitting upon his bed with paper before him and pencil in hand, he fell back and expired without a struggle. He died of typhoid fever and congestion of the lungs, induced by over-exertion.

Mr. Lyman was a republican in politics, had been a free-soiler, and always active from the very first. He will be well remembered throughout the State by members of the Legislature, the various matters of public interest in which he took part having made him prominent during legislative sessions. He was tall, of commanding figure and dignified presence, and though but fifty years of age at the time of his death, his grey hair, and long, white, flowing beard, gave to him an imposing and venerable appearance. He left a widow and nine children, to whom his loss is irreparable.

The friends of the Air Line road will lack his aid and counsel, and will regret that he could not have lived to see his greatest work completed, and the public and railroad interests will feel the loss of an able advocate and supporter.

---

*Deep River Drawbridge changed to Stationary Bridge. Petition, and Order of Commissioners.*

To the General Railroad Commissioners of the State of Connecticut:

The petition of the Connecticut Valley Railroad Company respectfully represents, that by the order of said Commissioners, and the layout of the railroad of said Company in the towns of Chester and Saybrook, and over and across the cove or creek which lies on and near the boundary line between said towns, as heretofore made and approved, the said Company are required to construct a drawbridge over said creek or cove; that said bridge was so ordered upon the claim of certain parties that said creek or cove was navigable, and was used by them for purposes of navigation; that since said bridge was so ordered, such parties have consented that a



stationary bridge should be constructed over said creek or cove for the crossing of said railroad ; and your petitioners are informed that the claim that said creek or cove is navigable, or used for purposes of navigation, has been abandoned, and that no parties interested therein desire that a drawbridge should be constructed over said creek or cove at said point for said crossing.

And your petitioners represent, that in the opinion of competent judges, said cove or creek is not navigable, and that a drawbridge is not needed at that point, and the interests of said company and of the public would be served by the construction of a stationary bridge instead of a drawbridge at said crossing, and no private interests would be impaired thereby. They therefore ask your Honorable Board to take the matter into consideration, and to summon parties who may have private interests to be affected by the change, and any and all parties who have heretofore asked for the construction of a drawbridge at said crossing, and upon due inquiry and consideration, to order that your petitioners may construct a stationary bridge instead of a drawbridge at said crossing, if upon such inquiry and consideration your Honorable Board shall find that such change ought to be made and can properly be made, and will ever pray.

CONNECTICUT VALLEY RAILROAD COMPANY,

By H. H. BARBOUR, their Attorney.

STATE OF CONNECTICUT, SS. HARTFORD, Sept. 20, 1870.

It is ordered, that the General Railroad Commissioners will meet at the Wahginnicut House, in Deep River, (town of Saybrook,) on the 29th day of September, 1870, at 9 o'clock in the forenoon, to attend to the matter of the foregoing petition, and that notice of the time and place of said meeting for that purpose be given to Oliver H. Clark, Richard Williams, Edward S. Shipman, Deep River Lumber Company, Deacon Gilbert W. Stevens, and John Baker, parties owning property contiguous to the premises referred to in said petition and interested in the matter aforesaid, by leaving with each of them, or at their usual places of abode, a true and attested

copy of the foregoing petition and of this order, by some indifferent person, on or before the 23d day of September, 1870, and they are to be permitted to appear and be heard in the matter aforesaid, before us, at the time and place aforesaid.

To any indifferent person to serve and return.

JAMES PIKE,	}	<i>General Railroad Commissioners.</i>
SIMEON GALLUP,		
JOHN I. HUTCHINSON,		

MIDDLESEX COUNTY, SS. SAYBROOK AND CHESTER, }  
September 23, 1870. }

Then and there I left a true and attested copy of the foregoing petition and order of notice, with or at the usual place of abode of Oliver H. Clark, Edward S. Shipman, in Chester, and Richard Williams, John Baker, Gilbert W. Stevens, Deep River Lumber Company, in Saybrook.

(Attest,)

HENRY L. PARKER,  
*An indifferent person.*

ESSEX, Conn., September 24, 1870.

Personally appeared Henry L. Parker, and made solemn oath to the truth of the foregoing statement in his return.

Before me,

JOHN I. HUTCHINSON,  
*Notary Public.*

To Joshua L'Hommedieu, William Clark, Ebenezer Holmes, Edward S. Shipman, Doct. Pratt, all of the town of Chester, in Middlesex County, Greeting:

By authority of the State of Connecticut, you are hereby commanded to appear before the Honorable Railroad Commissioners for the State of Connecticut, at the Wahginnicut Hotel, in the town of Saybrook in said County, on the 29th day of September, A. D. 1870, at 9 o'clock in the forenoon, then and there to testify what you know concerning the neces-

sity of building a drawbridge over the cove in the town of Saybrook in said Middlesex County, known as Saw Mill Cove. Hereof fail not but lawful service and return make.

Dated at Saybrook, September 28, 1870.

W. F. WILCOX,

*Justice of the Peace.*

Upon the foregoing application of the Connecticut Valley Railroad Company, dated September 20, 1870, praying for a change in the construction of bridge across the cove or creek lying between the towns of Chester and Saybrook, as set forth in said application: The undersigned, a majority of the General Railroad Commissioners of the State of Connecticut, have found and do hereby find, and make record as follows: to wit: That after said application had been duly presented to the Commissioners, and after the foregoing orders of notice attached to and next following said application had been made and signed by said Railroad Commissioners, and within the time limited by said order for the giving of the notice required thereby, due and reasonable notice was given to each and all the parties interested in said application to attend and be heard before the said Railroad Commissioners, at the Wahginicut House, in the town of Saybrook, on the 29th day of September, 1870, at 9 o'clock in the forenoon, then and there to show cause, if any they had, why the prayer of said application should not be approved and made.

That all the requirements of said order of said Commissioners were in all respects duly and fully complied with, and that the foregoing certificate of service and return, which is signed by Henry L. Parker, an indifferent person, is true and correct in all its statements. That at the time and place named in said order, Simeon Gallup and John I. Hutchinson, a majority of the General Railroad Commissioners, were present, and then and there repeatedly and publicly called upon all persons having any interest in said application and the matter therein set forth, to appear and be heard if they saw fit, in reference to said application and its subject matter. That the Connecticut Valley Railroad Company by its presi-



dent, J. C. Walkley, and attorney, W. F. Wilcox, appeared to prosecute the prayer of said application.

That Richard Williams and the Deep River Lumber Company, by their attorney, Charles C. Tyler, appeared to defend against the prayer of said application.

Whereupon, it was found, and hereby is found, that a part of the allegations contained in said application are true, and that the above described stream is not within the proper meaning and intent of the law, navigable; and that public necessity and convenience, does not require a drawbridge at that place; and, whereas a drawbridge at that place, would be a source of delay and danger to the public travel on said railroad.

We do hereby put upon record, our written approbation and approval of the change in the construction of said bridge, as proposed and set forth in said application; and we do hereby order and prescribe, that the said Connecticut Valley Railroad Company, may cross the said stream or cove, between the towns of Chester and Saybrook, by a stationary bridge, instead of by a drawbridge.

Witness our hands at Hartford, this 3d day of November, 1870.

SIMEON GALLUP,	} <i>General R. R.</i>
JOHN I. HUTCHINSON,	

PETITION FOR BRIDGES ON THE CONNECTICUT RAILROAD  
IN HARTFORD.

*To the Honorable Railroad Commissioners:—*

The undersigned attorney for the city of Hartford, would respectfully represent, in behalf of said city, that the tracks of the Connecticut Western Railroad Company, in entering the city of Hartford, cross Woodland and Edwards street, below the grade of said streets,—that it is the duty of said company, to erect bridges of suitable width upon said streets,—that said streets are sixty feet in width, and are beautiful avenues, and are soon to be largely travelled by the public,—that said bridges to be erected by said company, ought to be of the full width of said streets.

That your petitioner has reason to believe that said company are about to erect very narrow and unsuitable bridges upon said streets, such as will produce serious inconvenience to the public, be dangerous of passage, and such as will greatly disfigure said streets.

The petitioner prays said Honorable Commissioners, after finding said allegations herein set forth, to be true, to direct that bridges of the same width as said Woodland and Edward streets, be erected by said company, over their tracks on said streets.

And the petitioner further represents, that said Connecticut Western Railroad Company, cross Albany avenue, on entering said city of Hartford, at a place at grade with said avenue, at a place particularly dangerous to public travel.

That by a removal of their track a short distance westward, said track can easily cross said avenue, by a bridge crossing, whereby great danger and inconvenience to the public can be obviated.

Your petitioner prays that the allegations, herein set forth, concerning said crossing at Albany avenue, may be considered by said Honorable Commissioners, and if found to be true, that said Connecticut Western Railroad Company, may be required to cross said Albany avenue, at such a point as shall

cross it by bridge, instead of at grade, as at present laid out ; and, as in duty bound, your petitioner will ever pray.

THE CITY OF HARTFORD,  
BY GEORGE G. SUMNER, *Attorney*.

Upon the petition of the city of Hartford, by its attorney, George G. Sumner, in regard to the bridges on Edwards and Woodland streets, about to be erected by the Connecticut Western Railroad Company, over the track of the railroad of said company, and also in regard to the crossing of Albany avenue, by the railroad of said company, the Railroad Commissioners appointed a hearing at the Allyn House, in the city of Hartford, on the 28th day of December, at 9 o'clock in the forenoon, and gave due notice to the parties in interest, to appear, if they should see fit, and be heard, relative to the said petition and its subject matter ; and, at the time and place appointed, all of the General Railroad Commissioners of the State of Connecticut were present.

The city of Hartford, by its attorney, George G. Sumner, appeared to prosecute the prayer of said petition.

The Connecticut Western Railroad Company, by its attorney, Charles C. Chapman, and Secretary Wm. G. Coe, appeared to defend against the prayer of said petition.

And at the time and place aforesaid, the said Commissioners continued to hear for that day, all the parties in interest, relative to the said petition, and their evidence relating thereto, and adjourned to meet at a day to be afterwards fixed upon by the Commissioners, which day was fixed for January 11th, 1871, at 2 o'clock in the afternoon.

At the time and place last named, a majority of the Commissioners present, and upon petition of George G. Sumner, counsel for the city of Hartford, adjourned the hearing to the 26th day of January, 1871, at 10 o'clock in the forenoon, at the same place.

Pursuant to adjournment, all of the Railroad Commissioners were present, and after a full and impartial hearing



of all the parties in interest, and their evidence relative to the petition and its subject matter, and after a personal inspection of the localities named in the petition, the said Commissioners have found, and do hereby find, and make record as follows, to wit:

That on Edward street, the bridge is designed to be of the width asked for by the petitioner, and further action is unnecessary.

That on Woodland street, a bridge thirty feet in width, as designed, and being built by the said Railroad Company, will amply accommodate the present public travel, and will, when suitable approaches are made, fully comply with the requirements of statute; and it is *hereby ordered* that the said Railroad Company, make the approaches to said bridge, of the same width on the top as the bridge, and guard the said approaches with a substantial and suitable railing on both sides.

That on Albany avenue, public safety demands that a grade crossing should be avoided, and therefore, it is *hereby ordered* that the said Railroad Company shall cross Albany avenue, by building a bridge over the railroad: said bridge shall be not less than forty (40) feet in width, and shall be not more than six (6) feet above the present grade of the avenue at that point: and the grade of the railroad shall be made so that the height of the bridge shall conform to the statute.

Dated at Hartford, Conn., this 10th day of February, 1871.

JAMES PIKE,	}	<i>General Railroad Commissioners.</i>
SIMEON GALLUP,		
JOHN I. HUTCHINSON,		

---

PETITION FOR GATES ON THE H. & N. H. R. R. IN HARTFORD.

*To the Chairman of the Board of Selectmen of the town of  
Hartford:—*

The undersigned petitioners, citizens of the town of Hartford, desire to call your attention to the statute law of 1865,

providing for gates at public streets, where railroads cross the same at grade. Your petitioners pray that you will represent to the Railroad Commissioners of this state, that the public safety requires that gates be put up on the line of the Hartford and New Haven Railroad, in the town of Hartford, at the Park street road, at Laurel street, at Sigourney street, and at Flower street.

Hartford, Dec. 28th, 1870.

GEO. BEACH, AND OTHERS.

Upon petition of certain citizens of Hartford, by Allyn S. Stillman, chairman of the board of selectmen, for the town of Hartford, dated December 28th, 1870, and asking that the Railroad Commissioners might order gates to be established at the crossings of the Hartford and New Haven Railroad, on Flower, Sigourney, and Laurel streets, and on the Park street road, the Railroad Commissioners appointed a hearing on the matter of the petition, at the Allyn House, in the city of Hartford, on the 27th day of January, 1871, at two o'clock in the afternoon, and gave due notice to the secretary of the said railroad company, and to the said Allyn S. Stillman, for the selectmen of Hartford, and at the time and place appointed, all of the General Railroad Commissioners were present.

After a full and impartial hearing of all the evidence offered by the parties in interest and by certain citizens, the petitioners, and after a personal inspection of the crossings in question; the Railroad Commissioners are of the opinion that the said crossings are not extra-hazardous according to the meaning of statute; that the said railroad company has taken due precaution, to provide for the public safety at these crossings, as required by law, and that public interest and safety do not at this time require the establishment of gates.

Said petition is therefore dismissed.

Dated at Hartford, this 10th day of February, 1871.

JAMES PIKE,	}	<i>General R. R. Commissioners.</i>
SIMEON GALLUP,		
JOHN I. HUTCHINSON,		

The following communication, explaining the decision of the commissioners, was forwarded by them to the Hartford papers.

“The subject of railroad and street crossings, has been frequently brought before the railroad commissioners for their action, with a view to the establishment of gates, for the protection of public travel. For this purpose, the attention of the commissioners has been called to the crossings on Flower, Sigourney, and Laurel streets, and at the Park street road, by petition of certain citizens of Hartford. Considerations of public safety should, without doubt, take precedence of all others, but in trying to find the true merits of each case, many questions arise, which cannot be overlooked. Experience has shown that gates do not always prove a complete safeguard, accidents sometimes occurring where they are stationed; while at the same time, their maintainence is a very great expense. According to evidence before the commissioners, the capital required to maintain a gate and keeper, is equivalent to the expenditure of nearly \$10,000. Very many of the grade crossings in the state, are similar to these in question, and probably more than one-half of the one thousand now existing, are quite as dangerous. A system of establishing gates at these crossings, would many times seriously embarrass and prove entirely ruinous to railroad operations. After a careful investigation of the cases, now in question, the commissioners do not find sufficient reasons for ordering gates.

Flower street extends but a short distance below the railroad, and abruptly terminates, and travel is mostly confined to those living or doing business upon this street. To those upon the lower part of this street, the Broad street bridge furnishes a better outlet than the use of the street itself, while those above the crossing would mainly travel that way; so that the use of the crossing becomes more optional than necessary.

Sigourney street is evidently more used for pleasure driving, and the crossings necessarily more frequent. There is, however, an open view for some distance, and good opportu-



nity for observing approaching trains, and the situation more favorable for the avoiding of accidents, than in the majority of cases.

As much cannot be said in favor of the Laurel street crossing, which as it now exists, is in a deep cut, and consequently hidden and dangerous. This will, however, be effectually remedied by the new street already laid out, immediately adjoining this, which new street, will require a bridge over the tracks, while the crossing as now used, will be discontinued. This new street will probably take nearly all the pleasure travel from Sigourney street, thus greatly lessening the danger at that crossing.

At the Park street road, the Hartford and New Haven Railroad Company, have taken precaution to provide for the public safety, by placing at this crossing one of Hall's Patent Alarm Signals, which is intended to give suitable and timely warning of the approach of all trains, and though now still on trial, is apparently nearly as well adapted to guard against danger as a flagman or a gate. In this case, however, the true remedy is to carry the street under the railroad, which should be done by joint action of the town, with the two railroads crossing at this point. The expense would be comparatively light, as the situation is favorable for the construction of such a passage; and the parties in interest, together with the public in general, would be benefitted by such a course, as a source of danger would be effectually removed."

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PETITION CONCERNING HORSE R. R. CROSSING IN NEW  
HAVEN, AND FINDING ON THE SAME.

*To the Honorable JAMES PIKE, SIMEON GALLUP, J. I. HUTCHINSON, Railroad Commissioners for the State of Connecticut:*

The undersigned being a majority of the Selectmen of the town of New Haven, in accordance with the provisions of the 462d Section of the Act relating to Steam Railroads (Revised

statutes, 1866, page 184), respectfully invite your immediate examination of so much of the track of the Hartford and New Haven Railroad Company, as is located upon Grand street, New Haven, and crossed over by the cars of the Fair Haven and Westville (horse) Railroad Company, said crossing being dangerous to ordinary travel, from the manner in which the planking between their rails has been, from time to time, and is now laid.

The companies named, being at variance as to the responsibility resting upon them, in regard to such planking, it is requested, that after sufficient notice to all parties in interest, to appear and be heard, at the time and place named, the Railroad Commissioners will make such order as will cause the track or tracks aforesaid, in the language of the law, to be "kept in suitable repair," and "the railroad companies faithfully to comply with the laws of the State, and the provisions of their several charters."

Dated at the city of New Haven, on the 17th day of February, 1871.

WM. R. SHELTON, CHARLES R. POPE, WM. HILLHOUSE, CHARLES RUCKHOLDT,	}	<i>Selectmen.</i>
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Upon the petition of the Selectmen of the town of New Haven, dated at New Haven, the 17th day of February, 1871, asking for the direction of the Railroad Commissioners, in regard to the crossing of the Hartford and New Haven Railroad, and the Fair Haven and Westville Horse Railroad, on Grand street, in the city of New Haven, the General Railroad Commissioners of the State of Connecticut gave due notice to the parties in interest, to appear and be heard, before said Railroad Commissioners, relative to the matter of the said petition, at the New Haven House, in the city of New Haven, on the 3d day of March, A. D. 1871, at 10 o'clock in the

forenoon; and at the time and place appointed, the said railroad commissioners were present, and after a full and impartial hearing of all the parties in interest, and after a personal inspection of the crossing in question, do make the following finding and decision, to wit :—

That the Hartford and New Haven Railroad crossing, at Grand street, in the city of New Haven, has been, and is now, kept in good and sufficient repair, by the said Railroad Company, excepting that part of the planking, between the rails of the Fair Haven and Westville Horse Railroad Company.

The 9th Section of the charter of the said Horse Railroad Company, requires it to keep in good and sufficient repair, that part of the streets and highways over which its road is located, and also two feet on each side. The Railroad Commissioners are of the opinion that this embraces that part of the street, crossed by the Hartford and New Haven Railroad, as much as it does any part of the street. As the legislature in the charter of said Horse Railroad Company, granted it a location across the right of way of the Hartford and New Haven Railroad Company, thereby diminished the value of the franchise of the said Hartford and New Haven Railroad Company, law and equity would seem to demand that that part of the planking across said street, between the rails of said Horse Railroad Company, should be kept in repair, by the Horse Railroad Company.

The Railroad Commissioners make no order in the premises.

Dated at Hartford, Conn., this 21st day of March, 1871.

JAMES PIKE,	}	<i>General R. R.</i>
SIMEON GALLUP,		
JOHN I. HUTCHINSON,		
		<i>Commissioners.</i>





SIXTH ANNUAL  
REPORT  
OF THE  
COMMISSIONER OF INSURANCE,  
TO THE  
LEGISLATURE OF CONNECTICUT,  
MAY SESSION, 1871.

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Printed by order of the Legislature.

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NEW HAVEN:  
STAFFORD COMPANY, STATE PRINTERS.

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1871





INSURANCE DEPARTMENT,  
STATE OF CONNECTICUT,  
NEW HAVEN, May, 1871. }

*To the General Assembly :*

The undersigned herewith transmits to your Honorable Body the Sixth Annual Report of this Department, embracing a statement of the condition of all Insurance Companies incorporated by other States and Foreign Governments, which have been admitted into this State to transact business during the year 1871.

All of which is respectfully submitted.

BENJAMIN NOYES,  
*Commissioner of Insurance.*



# REPORT.

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## INTRODUCTION.

There are few branches of business which are more generally identified with the interests of the people, than the business of Insurance.

Those who have property insure it, and those who have no property insure their lives.

The two classes above referred to call into requisition two classes of Insurance Companies, viz., companies to insure property, embracing fire and marine insurance, and companies to insure lives.

These institutions are classified as stock or mutual insurance companies, with the modern combination of stock and mutual combined.

With these various classes of Insurance Companies the public has occasion to deal, and the law which define the duties of the Insurance Department, requires that the Commissioner shall decide which of the Companies seeking admission into this State, shall be accepted and which rejected. At the same time the exercise of the powers of the Commissioner, in this respect, are controlled more by reciprocal legislation, than by his judgment of the responsibility of the Company making application for admission. Therefore, the Commissioner is not entirely responsible for the character and responsibility of the Companies he may admit into the State.

At the present time, the efforts of Insurance Companies to get business involves them in enormous expenses, and the employment of men as agents, solicitors and adjusters; many of



these employées are entirely incompetent to the business, and these evils seem to increase with the misfortunes of the Companies.

In former years, successful Fire Insurance Companies paid to their stockholders from fifteen to twenty-five per cent. per annum in the shape of cash dividends, but of late there are few fire insurance companies which pay to their stockholders dividends which exceed the ordinary rates of interest on money, which is loaned with ample security, showing clearly that the fire insurance stockholder reaps little or no advantage from the millions of dollars involved by the issue of policies, and the tens of thousands of dollars of premiums received thereon.

The figures which in former reports of this Department have exhibited the balance sheets of the Fire Insurance Companies combined, prove most clearly that the modern mode of management has not kept pace with the rights of stockholders, and that a general reformation of management is necessary to entitle the managers to much credit, and the stockholders to fair dividends on the capital they have furnished and the risks they have assumed.

The past year, as will be seen by this report, has not strengthened this class of Insurance Companies, and it is very doubtful if the system of Fire Insurance will sustain itself much longer, with present losses and expenses, at present rates of premium, except in occasional instances, unless the management is reformed, and the various insurance officials of the various States are clothed with more positive duties, and their appointments to office based upon a higher standard than mere political claims.

The mode we have adopted of exhibiting the condition of the various insurance companies admitted into this State, is very simple; so much so, that almost any person having property to insure, can satisfy himself as to the relative strength of any one of them.

Much more space might be occupied in setting forth details, but in the opinion of your Commissioner, no public advantage would follow; and he is pleased to notice that the Hon. Geo. W. Miller, the new official at Albany, has contracted the vol-

umes issued by that Department to less than half the space employed by his predecessor.

With these remarks, we proceed to make a brief exhibit of the condition of the insurance companies admitted into the State since our last report, and now authorized to transact business in this State with such persons as see fit to patronize them.

We have been very careful in the admission of these companies, and believe them to be responsible and worthy of public confidence.





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STATEMENT OF THE CONDITION  
OF  
FIRE INSURANCE COMPANIES  
FROM OTHER STATES,  
TRANSACTION BUSINESS IN THE STATE OF  
CONNECTICUT.

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*Statement of the condition of the AGRICULTURAL INSURANCE COMPANY, of Watertown, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$100,000.00
Amount actually paid in, . . . . .	\$100,000.00
Amount of Assets treated as Surplus, . . . . .	450,847.57
Whole amount of actual Capital and Surplus, . . . . .	<u>\$550,847.57</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$77,007.18
Amount of Real Estate owned by the Company, . . . . .	20,000.00
Amount of First Mortgages on Real Estate, . . . . .	284,670.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	45,946.11
Amount invested in Bonds, . . . . .	200.00
Amount invested in United States Securities, . . . . .	59,790.25
Amount invested in State, City, Town and County Securities, . . . . .	800.00
Amount of other Stocks, Bonds and Securities, . . . . .	8,544.88
Amount due from Agents, \$40,333.47. Office Premiums due, \$40,333.47	
Amount of all other Assets, viz: office Furniture, . . . . .	1 117.70
Amount just accrued on Mortgages, Bonds and all other loans, . . . . .	12,438.16
Total Assets, . . . . .	<u>\$550,847.57</u>

### Liabilities.

Amount of Losses unadjusted, . . . . .	9,450.00
Amount of Cash Dividends unpaid, . . . . .	39.00
Estimated amount required to reinsure existing Policies, . . . . .	216,344.17
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$225,833.17</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$300,971.88
Amount of Losses paid in 1870, . . . . .	\$156,800.01
Amount of Salaries paid in 1870, . . . . .	15,603.42
Amount of Commission and Agency Expenses paid in 1870, 30,890.02	
Amount of State and other Taxes paid in 1870, . . . . .	13,780.45
Amount of Dividends paid in 1870, . . . . .	30,000.00
Amount of all other Disbursements paid in 1870, . . . . .	8,740.28
Receipts over payments, . . . . .	<u>\$45,247.70</u>
ISAAC MUNSON, <i>Secretary.</i>	JOHN C. COOPER <i>President.</i>
W. A. CALDWELL, Sherman, <i>Attorney.</i>	



*Statement of the Condition of the ALBANY CITY INSURANCE COMPANY,  
of Albany, N. Y., on the 1st day of January, 1871, made to the Commissioner  
of Insurance of Connecticut.*

**Capital.**

Authorized Capital,	\$1,000,000.00
Amount actually paid in,	\$200,000.00
Amount of Assets treated as Surplus,	195,145.69
Whole amount of actual Capital and Surplus,	<u>\$395,145.69</u>

**Assets.**

Amount of Cash on hand and in Banks, including 15 per cent. assessment on Stockholders,	30,657.82
Amount of First Mortgages on Real Estate,	13,450.00
Amount of Loans secured by Collaterals and Personal Securities,	6,975.00
Amount invested in Bank Stock,	1,497.76
Amount invested in Bonds,	68,000.00
Amount invested in United States Securities,	77,000.00
Amount invested in State, City, Town and County Securities,	10,700.00
Amount invested in other Stocks, Bonds and Securities,	7,500.00
Amount of Premium Notes,	73,731.02
Amount due from Agents. Office Premiums due,	68,343.89
Amount of all other Assets, viz: Salvage Notes on hand,	4,090.20
Amount office Furniture, Stationery, &c.,	9,000.00
Amount Salvage property and claims on Losses paid,	24,200.00
Total Assets,	<u>\$395,145.69</u>

**Liabilities.**

Amount of Losses acknowledged,	\$30,459.05
Amount of Losses unadjusted, \$81,330.13      Losses resisted, \$6,750	88,080.13
Amount of outstanding Scrip for Profits,	368.00
Amount of Premium Account for 1870,	\$711,345.71
Amount Insured by Existing Policies,	18,268,474 00
Estimated amount required to reinsure existing Policies,	111,024.17
Estimated liabilities, exclusive of Capital,	<u>\$229,931.35</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870,	\$735,578.10
Amount of Losses paid in 1870,	\$528,511.47
Amount of Salaries paid in 1870,	5,500.00
Amount of Commission and Agency Expenses paid in 1870,	74,870.28
Amount of State and other Taxes paid in 1870,	16,789.34
Amount of Rents and Office Expenses paid in 1870,	29,346.61
Amount of all other Disbursements paid in 1870,	35,744.11    690,761.21
Receipts over payments,	<u>\$44,816.89</u>

WM. D. YOUNG, *Secretary.*

JAMES HENDRICK, *Vice President.*

C. C. KIMBALL, *Hartford, Attorney.*

*Statement of the Condition of the AMERICAN INSURANCE COMPANY  
of Providence, R. I., on the 1st day of January, 1871, made to the Commissioner  
of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000	
Amount actually paid in, . . . . .		\$200,000.00
Amount of Assets treated as Surplus, . . . . .		174,969.96
Whole amount of actual Capital and Surplus,		<u>374, 969.96</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$35,599.02
Amount invested in Bank Stock, . . . . .	239,550.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	65,700.00
Amount of Premium Notes, Marine, . . . . .	17,854.60
Amount due from Agents, \$8,127.20 Office Premiums due, \$3,398.50, . . . . .	11,525.70
Amount of all other Assets, viz: Accrued Interest, &c. . . . .	4,740.63
Total Assets, . . . . .	<u>\$374,969.96</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$50.50
Amount of Losses unadjusted, \$3,904.95 Losses resisted, \$ . . . . .	6,404.95
Amount of Cash Dividends unpaid, . . . . .	390.00
Amount of all other claims against the Company, . . . . .	200.00
Amount of Premium Account for 1870, . . . . .	\$170,217.89
Amount Insured by Existing Policies, . . . . .	7,693,602.00
Estimated amount required to reinsure existing Policies, . . . . .	46,551.93
Estimated liabilities, exclusive of Capital, . . . . .	<u>53,397.38</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$141,515.05
Amount of Losses paid in 1870, . . . . .	\$93,349.35
Amount of Salaries paid in 1870, . . . . .	5,600.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	6,401.67
Amount of State and other Taxes paid in 1870, . . . . .	7,438.70
Amount of Rents and Office Expenses paid in 1870, . . . . .	4,642.39
Amount of Dividends paid in 1870, . . . . .	27,012.05
	<u>144,354.16</u>

Payments over Receipts, . . . . . \$2,889.11

WM. W. ARNOLD, *Secretary.*

J. H. DEWOLF, *President.*

WM E. BAKER, *Hartford, Attorney.*

*Statement of the Condition of the AMERICAN CENTRAL INSURANCE COMPANY, of St. Louis, Mo., on the 1st day of January, 1871, made to the Commissoner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$10,000,000	
Amount actually paid in, . . . . .		\$231,370.00
Amount of Assets treated as Surplus, . . . . .		33,505.77
Whole amount of actual Capital and Surplus,		<u>\$264,875.77</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$53,942.15	
Amount invested in United States Securities, . . . . .	166,555.00	
Amount due from Agents, \$12,231.21. Office Premiums due, \$9,509.45	21,740.66	
Amount of all other Assets, viz: Salvage claims on losses, . . . . .	3,439.89	
Amount Reinsurance acc. from other Companies, . . . . .	13,832.50	
Amount Furniture, Fixtures, &c., . . . . .	5,365.57	\$22,637.96
Total Assets, . . . . .		<u>\$264,875.77</u>

**Liabilities.**

Amount of Losses unadjusted, \$3,500. . . . .	Losses resisted, \$1,500 . . . . .	\$5,000.00
Amount of Premium Account for 1870, . . . . .	192,587.27	
Amount Insured by Existing Policies, . . . . .	5,472,555.00	
Estimated amount required to reinsure existing Policies, . . . . .		24,836.21
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$29,836.21</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, including \$105,250 increased Capital, . . . . .	\$279,151.42	
Amount of Losses paid in 1870, . . . . .	\$80,317.43	
Amount of Salaries paid in 1870, . . . . .	18,415.69	
Amount of Commission and Agency Expenses paid in 1870, . . . . .	14,846.15	
Amount of State and other Taxes paid in 1870, . . . . .	6,047.50	
Amount of Rents and Office Expenses paid in 1870, . . . . .	8,401.15	
Amount of Dividends paid in 1870, . . . . .	6,648.10	
Amount of all other Disbursements paid in 1870, . . . . .	19,640.40	154,916.42
Receipts over payments, . . . . .		<u>\$124,235.00</u>

GEO. T. CRAM, *Secretary.*

M. L. POTTER, *President.*

L. W. SPERRY, New Haven, *Attorney.*



*Statement of the Condition of the ANDES INSURANCE COMPANY, of Cincinnati, Ohio, on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	
Amount actually paid in, . . . . .	\$1,000,000.00
Amount of Assets treated as Surplus, . . . . .	203,425.65
	<hr/>
Whole amount of actual Capital and Surplus, . . . . .	\$1,203,425.65
	<hr/>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$136,931.83
Amount of First Mortgages on Real Estate, . . . . .	614,081.53
Amount on Loans secured by Collaterals and Personal Securities, . . . . .	5,660.00
Amount invested in United States Securities, . . . . .	194,974.38
Amount invested in State, City, Town and County Securities, . . . . .	101,965.80
Amount due from Agents, \$101,556.97. Office Premiums due, \$637.14	102,194.11
Amount of all other Assets, viz: Bills Receivable, . . . . .	11,655.73
Amount interest accrued, but not due on Bonds and Mortgages, . . . . .	28,017.59
Amount office Furniture, Fixtures, Supplies, and due from other Co.'s, . . . . .	7,944.68
	<hr/>
Total Assets, . . . . .	\$1,203,425.65
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**Liabilities.**

Amount of Losses unadjusted, . . . . .	\$32,726.86
Amount of all other claims against the Company, . . . . .	150.00
Amount of Premium Account for 1870, . . . . .	\$243,999.23
Amount Insured by Existing Policies, . . . . .	11,651,043.35
Estimated amount required to reinsure existing Policies, . . . . .	130,184.99
	<hr/>
Estimated liabilities, exclusive of Capital, . . . . .	\$153,061.85
	<hr/>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$266,669.83
Amount of Losses paid in 1870, . . . . .	\$22,525.21
Amount of Salaries paid in 1870, . . . . .	27,058.57
Amount of Commission and Agency Expenses paid in 1870, . . . . .	26,759.30
Amount of State and other Taxes paid in 1870, . . . . .	8,823.33
Amount of Rents and Office Expenses paid in 1870, . . . . .	49,551.43
	<hr/>
Receipts over payments, . . . . .	\$131,951.49

J. H. BEATTIE, *Secretary.*

J. B. BENNETT, *President.*

C. B. BOWERS, New Haven, *Attorney.*

*Statement of the Condition of the ATLANTIC FIRE INSURANCE COMPANY of Brooklyn, N. Y., on the 1st day of January, 1871. made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Amount actually paid in, . . . . .	\$300,000.00
Amount of Assets treated as Surplus, . . . . .	248,194.33
<hr/>	
Whole amount of actual Capital and Surplus,	548,194.33

**Assets.**

Amount of Real Estate owned by the Company, . . . . .	\$24,013.28
Amount of First Mortgages on Real Estate, . . . . .	56,650.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	19,750.00
Amount invested in Bank Stock, . . . . .	26,355.00
Amount invested in United States Securities, . . . . .	322,500.00
Amount invested in State, City, Town and County Securities, . . . . .	74,780.00
Amount due from Agents, \$6,000. Office Premiums due, \$7,213.65 . . . . .	13,213.65
Amount of all other Assets, viz: Accrued Interest, . . . . .	9,217.06
Amount Salvage Property and claims on Losses already paid, . . . . .	1,715.34
<hr/>	
Total Assets, . . . . .	\$548,194.33

**Liabilities.**

Amount of Losses unadjusted, \$33,033.26. Losses resisted, \$13,535 . . . . .	46,568.26
Amount of Premium Account for 1870, . . . . .	\$334,221.12
Amount Insured by Existing Policies, . . . . .	34,870,938.00
Estimated amount required to reinsure existing Policies, . . . . .	166,850.07
<hr/>	
Estimated liabilities, exclusive of Capital, . . . . .	213,418.33

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$365,193.91
Amount of Losses paid in 1870, . . . . .	\$159,423.62
Amount of Salaries paid in 1870, . . . . .	27,539.16
Amount of Commission and Agency Expenses paid in 1870, . . . . .	34,642.64
Amount of State and other Taxes paid in 1870, . . . . .	11,646.86
Amount of Rents and Office Expenses paid in 1870, . . . . .	32,969.32
Amount of Dividends paid in 1870, . . . . .	36,000.00
Amount of all other Disbursements paid in 1870, . . . . .	26,720.55
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Receipts over payments, . . . . .	36,251.76

HORATIO DORR, *Secretary.*

JOHN D. COCKS, *President.*

JUDAH FRISBIE, New Haven, *Attorney.*

*Statement of the Condition of the ATLANTIC FIRE AND MARINE INSURANCE COMPANY, of Providence, R. I., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$500,000
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	126,614.08
Whole amount of actual Capital and Surplus,	<u>\$326,614.08</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$23,895.39
Amount of Real Estate owned by the Company, . . . . .	127,976.83
Amount invested in Bank Stock, . . . . .	153,720.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	11,900.00
Amount of Premium Notes, . . . . .	653.13
Amount due from Agents, \$5,997.42 Office Premiums due, \$1,395.74	7,393.16
Amount of all other Assets, viz: Personal Property, Rev. Stamps, &c.,	1,075.57
Total Assets, . . . . .	<u>\$326,614.08</u>

### Liabilities.

Amount of Losses acknowledged, . . . . .	\$450.50
Amount of Losses unadjusted, \$14,880.53, Losses resisted, \$5,000	19,880.53
Amount of Cash Dividends unpaid, . . . . .	222.00
Amount of all other claims against the Company, . . . . .	15,166.67
Amount of Premium Account for 1870, . . . . .	\$77,922.01
Amount Insured by Existing Policies, . . . . .	6,659,259.00
Estimated amount required to reinsure existing Policies, . . . . .	41,784.63
Estimated liabilities, exclusive of Capital, . . . . .	<u>77,504.33</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$105,442.41
Amount of Losses paid in 1870, . . . . .	\$71,502.71
Amount of Salaries paid in 1870, . . . . .	8,666.67
Amount of Commission and Agency Expenses paid in 1870,	9,857.73
Amount of State and other Taxes paid in 1870, . . . . .	6,738.65
Amount of Rents and Office Expenses paid in 1870, . . . . .	3,580.20
Amount of Dividends paid in 1870, . . . . .	7,990.00
Payments over receipts, . . . . .	<u>\$2,893.55</u>

J. S. PARISH, *Secretary.*

S. MAURAN, *President.*

WM. E. BAKER, Hartford, *Attorney.*



*Statement of the Condition of the BAY STATE FIRE INSURANCE COMPANY, of Worcester, Mass., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

Amount actually paid in, . . . . .	\$104,800.00
Amount of Assets treated as Surplus, . . . . .	92,085.97
Whole amount of actual Capital and Surplus,	<u>\$196,885.97</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$9,308 00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	15,600.00
Amount invested in Bank Stock, . . . . .	78,650.75
Amount invested in Railroad Stock, . . . . .	17,950.00
Amount invested in United States Securities, . . . . .	5,000.00
Amount due from Agents, \$4,071.60, . . . . .	4,071.60
Amount of all other Assets, viz: Accrued Interest, \$125. Office Furniture, \$500. . . . .	625.00
Total Assets, . . . . .	<u>\$196,885.97</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$2,089.18
Amount of Losses unadjusted, \$1,800. Losses resisted, \$3,500. . . . .	5,300.00
Amount of all other claims against the Company, . . . . .	890.44
Amount of Premium Account for 1870, . . . . .	\$89,171.54
Amount Insured by Existing Policies, . . . . .	105,026.68
Estimated amount required to reinsure existing Policies, . . . . .	52,513.34
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$60,792.96</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$103,072.14
Amount of Losses paid in 1870, . . . . .	\$49,307.35
Amount of Salaries paid in 1870, . . . . .	3,725.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	125,577.60
Amount of State and other Taxes paid in 1870, . . . . .	4,780.17
Amount of Rents and Office Expenses paid in 1870, . . . . .	4,533.72
Amount of Dividends paid in 1870, . . . . .	104.80
Receipts over payments, . . . . .	<u>\$85,403.84</u>
	\$17,668.30

U. C. CROSBY, JR., *Secretary.*

W. S. DAVIS, *President.*

THOMAS H. PERKINS, *Norwich, Attorney.*

*Statement of the Condition of the BUFFALO CITY INSURANCE COMPANY, of Buffalo, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Amount of Capital Stock paid in, . . . . .	\$300,000.00
Accumulations and Balances treated as Assets, . . . . .	70,933.59
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Whole amount of Capital and Surplus, . . . . .	\$370,933.59
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### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$20,043.09
Loans on Collaterals, . . . . .	83,920.00
Amount invested in United States Securities, . . . . .	247,825.00
Amount Invested in other Stocks, Bonds and Securities, . . . . .	1,097.97
Amount of Premium Notes treated as Assets, . . . . .	3,647.71
Amount due from Agents, \$6,977.56. Office Premiums due, \$1,372.05, . . . . .	8,349.61
Amount of all other Assets, . . . . .	6,050.21
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Total Assets, . . . . .	\$370,933.59
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### Liabilities.

Amount of Capital Stock, . . . . .	\$300,000.00
Amount of Losses acknowledged, . . . . .	19,771.00
Amount at Risk, . . . . .	\$14,500,675.00
Amount of Premiums for 1870. . . . .	190,000.00
Estimated amount required to reinsure existing Policies, . . . . .	79,755.28
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	\$399,526.28

### Miscellaneous.

Amount of Gross Receipts, in 1870, . . . . .	\$341,610.48
Amount of Gross Disbursements, in 1870, . . . . .	291,792.59
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Receipts over payments, . . . . .	\$49,817.89

HENRY T. SMITH, *Secretary.*

A. REYNOLDS, *President.*

J. W. POND, New Haven, *Attorney.*

*Statement of the Condition of the BUFFALO FIRE AND MARINE INSURANCE COMPANY, of Buffalo, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$304,222.50
Amount actually paid in, . . . . .	\$304,222.50
Amount of Assets treated as Surplus, . . . . .	169,354.89
Whole amount of actual Capital and Surplus, . . . . .	<u>\$473,577.39</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$65,189.82
Amount of Real Estate owned by the Company, . . . . .	12,000.00
Amount of First Mortgages on Real Estate, . . . . .	79,089.19
Amount invested in Railroad Bonds, . . . . .	66,560.00
Amount invested in United States Securities, . . . . .	192,205.00
Amount invested in State, City, Town and County Securities, . . . . .	24,480.00
Amount of Premium Notes claimed as Assets, . . . . .	16,049.62
Amount of all other Assets, viz: Judgment \$6,000, Steam Pumps, \$4,000. Office Furniture, \$2,000. Interest due and Accrued on B. Mort. and Stocks, \$2,503.76. }	18,003.76
Total Assets, . . . . .	<u>\$473,577.39</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$20,606.66
Amount of Losses unadjusted, \$20,400. Losses resisted, \$4,000. . . . .	24,400.00
Amount of Cash Dividends unpaid, . . . . .	3,962.17
Amount of outstanding Scrip for Profits, . . . . .	8,210.24
Amount of Premium Account for 1870, . . . . .	\$214,189.85
Amount Insured by Existing Policies, . . . . .	15,577,566.00
Estimated amount required to reinsure existing Policies, . . . . .	89,946.12
Estimated Liabilities, exclusive of Capital, . . . . .	<u>\$147,125.49</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$243,668.28
Amount of Losses paid in 1870, . . . . .	\$159,336.61
Amount of Salaries paid in 1870, . . . . .	9,880.54
Amount of Commission and Agency Expenses paid in 1870, . . . . .	29,204.00
Amount of State and other Taxes paid in 1870, . . . . .	11,048.27
Amount of Rents and Office Expenses paid in 1870, . . . . .	10,863.98
Amount of Dividends paid in 1870, . . . . .	30,503.40
Amount of all other Disbursements paid in 1870, . . . . .	212.59
Payments over receipts, . . . . .	<u>\$7,381.11</u>

TOWNSEND DAVIS, *Secretary.*

S. S. JEWETT, *President.*

J. W. POND, New Haven, *Attorney.*



*Statement of the Condition of the BUFFALO GERMAN INSURANCE COMPANY, of Buffalo, N. Y., on the 1st day of January, 1871, made to the Commissioner of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000	
Amount actually paid in, . . . . .		200,000.00
Amount of Assets treated as Surplus, . . . . .		70,080.82
Whole amount of actual Capital and Surplus, . .		<u>\$270,080.82</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$25,560.56	
Amount of Real Estate owned by the Company, . . . . .	40,000.00	
Amount of First Mortgages on Real Estate, . . . . .	23,350.00	
Amount of Loans Secured by Collaterals and Personal Securities, . . . . .	4,000.00	
Amount invested in United States Securities, . . . . .	140,075.00	
Amount invested in State, City, Town and County Securities, . . . . .	25,000.00	
Amount due from Agents, \$6,469.62, Office Premiums due, \$950.16	7,419.78	
Amount of all other Assets, viz.: Accrued Interest, Personal property, Stamps, &c. . . . .	2,675.48	
Total Assets, . . . . .		<u>\$270,080.82</u>

**Liabilities.**

Amount of Losses unadjusted, . . . . .	\$2,170.00	
Amount of Premium Account for 1870, . . . . .	889,996.13	
Amount insured by existing Policies, . . . . .	\$10,167,525.00	
Estimated amount required to reinsure existing Policies. . . . .	\$45,806.72	
Estimated liabilities, exclusive of Capital, . .		<u>\$47,976.72</u>
Gross Receipts from all sources in 1870, . . . . .	\$107,479.58	
Amount of Losses paid in 1870, . . . . .	\$25,317.37	
Amount of Salaries paid in 1870, . . . . .	6,317.84	
Amount of Commission and Agency Expenses paid in 1870, . . . . .	9,873.88	
Amount of State and other Taxes, paid in 1870, . . . . .	3,405.28	
Amount of Rents and Office Expenses paid in 1870, . . . . .	8,852.52	
Amount of Dividends paid in 1870, . . . . .	10,000.00	
Amount of all other Disbursements paid in 1870, . . . . .	29,795.00	\$93,561.89
Receipts over Payments, . . . . .		<u>\$13,917.69</u>

ALEXANDER MARTIN, *Secretary.*

PHILIP BECKER, *President.*

GEO. S. LESTER, New Haven, *Attorney.*

*Statement of the Condition of the CAPITAL CITY INSURANCE COMPANY, of Albany, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	93,766.00
Whole amount of actual Capital and Surplus, . . . . .	<u>\$293,766.00</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$6,338.37
Amount invested in United States Securities, . . . . .	270,050.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	9,000.00
Amount due from Agents, . . . . .	826.26
Amount of all other Assets, viz.: Interest Accrued, . . . . .	7,101.37
Total Assets, . . . . .	<u>\$293,766.00</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$3,500.00
Amount of Losses resisted, \$2,500. . . . .	2,500.00
Amount of all other claims against the Company, . . . . .	588.37
Amount of Premium Account for 1870, . . . . .	\$43,433.69
Amount insured by existing Policies, . . . . .	\$4,316,071.00
Estimated amount required to reinsure existing Policies, . . . . .	20,234.29
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$26,822.66</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$61,781.87
Amount of Losses paid in 1870, . . . . .	\$26,104.65
Amount of Salaries paid in 1870, . . . . .	4,108.23
Amount of Commission and Agency Expenses paid in '70, . . . . .	5,742.43
Amount of State and other Taxes paid in 1870, . . . . .	1,940.16
Amount of Rents and Office Expenses paid in 1870, . . . . .	2,524.99
Amount of Dividends paid in 1870, . . . . .	20,000.00
Amount of all other Disbursements paid in 1870, . . . . .	3,790.14
Payments over Receipts, . . . . .	<u>\$2,428.73</u>

JAMES F. CROSBY, *Secretary.*      WM. M. VANANTWERP, *Vice President.*  
RALPH GILLET, Hartford, *Attorney,*

*Statement of the Condition of the CITIZEN'S INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Assets.**

Authorized Capital, . . . . .	\$300,000.00
Amount actually paid in, . . . . .	\$300,000.00
Amount of Assets treated as Surplus, . . . . .	\$384,822.47
Whole amount of actual Capital and Surplus, . . . . .	<u>\$684,822.47</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$15,300.96
Amount of Real Estate owned by the Company, . . . . .	15,000.00
Amount of First Mortgages on Real Estate, . . . . .	62,100.00
Amount of Loans Secured by Collaterals and Personal Securities, . . . . .	209,450.00
Amount invested in Bank Stock, . . . . .	22,500.00
Amount invested in Railroad Stock, . . . . .	44,000.00
Amount invested in United States Securities, . . . . .	270,000.00
Amount invested in State, City, Town and County Securities, . . . . .	32,500.00
Amount of Office Premiums due, . . . . .	6,488.04
Amount of all other Assets, viz: Accrued Int. and Rent, Furn. and Fixt., . . . . .	7,483.47
Total Assets, . . . . .	<u>\$684,822.47</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$12,400.00
Amount of Cash Dividends unpaid, . . . . .	52.50
Amount of all other claims against the Company, . . . . .	1,416.00
Amount of Premium Account for 1870, . . . . .	\$246,462.91
Amount Insured by Existing Policies, . . . . .	7,023.24
Estimated amount required to reinsure existing Policies, . . . . .	<u>\$100,000.00</u>
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$113,868.50</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$270,519.49
Amount of Losses paid in 1870, . . . . .	\$73,794.19
Amount of Salaries paid in 1870, . . . . .	41,065.03
Amount of Commission and Agency Expenses paid in 1870, . . . . .	15,014.80
Amount of State and other Taxes paid in 1870, . . . . .	12,067.37
Amount of Rents and Office Expenses paid in 1870, . . . . .	22,012.03
Amount of Dividends paid in 1870, . . . . .	105,697.50
Receipts over Payments, . . . . .	<u>\$868.55</u>

EDWARD A. WALTON, *Secretary.*

J. M. McLEAN, *President.*

WM. E. BAKER, *Hartford, Attorney.*



*Statement of the Condition of the COMMERCE INSURANCE COMPANY,  
of Albany, N. Y., on the 1st day of January, 1871, made to the Commissioner  
of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000	
Amount actually paid in, . . . . .		400,000.00
Amount of Assets treated as Surplus, . . . . .		289,231.58
Whole amount of actual Capital and Surplus, . . . . .		<u>\$689,231.58</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$49,173.58
Amount of Real Estate owned by the Company, . . . . .	45,000.00
Amount of First Mortgages on Real Estate, . . . . .	70,300.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	14,000.00
Amount invested in Bank Stock, . . . . .	55,600.00
Amount invested in United States Securities, . . . . .	441,000.00
Amount invested in State, City, Town and County Securities, . . . . .	1,000.00
Amount due from Agents, \$11,051.57. Office Premiums due, \$445.88. . . . .	11,497.45
Amount of all other Assets, viz: Rents, and Int. accrued, but not due, . . . . .	1,660.55
Total Assets, . . . . .	<u>\$689,231.58</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$7,250.00
Amount of Losses unadjusted, \$21,700. Losses resisted, \$17,650, . . . . .	39,350.00
Amount of Premium Account for 1870, . . . . .	\$258,663.98
Amount Insured by existing Policies, . . . . .	23,883,681.00
Estimated amount required to reinsure existing Policies, . . . . .	<u>\$126,744.98</u>
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$173,344.98</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$279,969.44
Amount of Losses paid in 1870, . . . . .	\$174,002.33
Amount of Salaries paid in 1870, . . . . .	14,591.70
Amount of Commission and Agency Expenses paid in 1870, . . . . .	36,137.74
Amount of State and other Taxes paid in 1870, . . . . .	13,108.30
Amount of Rents and Office Expenses paid in 1870, . . . . .	1,319.55
Amount of Dividends paid in 1870, . . . . .	40,000.00
Amount of all other Disbursements paid in 1870, . . . . .	9,203.67
Payments over Receipts, . . . . .	<u>\$8,393.85</u>

ROBERT M. HAMILTON, *Secretary.*     G. A. VAN ALLEN, *Vice President.*  
B. B. WHITEMORE, *Norwich, Attorney.*

*Statement of the Condition of the CONTINENTAL INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital,	\$500,000.
Amount actually paid in,	\$500,000.00
Amount of Assets treated as Surplus,	2,038,037.74

Whole amount of actual Capital and Surplus, . \$2,538,037.74

### Assets.

Amount of Cash on hand and in Banks,	\$130,594.05
Amount of Real Estate owned by the Company,	265,000.00
Amount of First Mortgages on Real Estate,	725,250.00
Amount of Loans secured by Collaterals and Personal Securities,	440,200.00
Amount invested in Bank Stock,	140,930.00
Amount invested in Railroad Bonds,	17,500.00
Amount invested in United States Securities,	548,800.00
Amount invested in State, City, Town and County Securities,	145,400.00
Amount of other Stocks, Bonds and Securities,	21,000.00
Amount of Office Premiums due,	68,283.37
Amount of all other Assets, viz: Interest due on Loans,	31,080.31
Amount of Rents accrued,	4,000.00

Total Assets, . \$2,538,037.74

### Liabilities.

Amount of Losses unadjusted, \$52,350.	Losses resisted, \$11,500,	\$63,850.00
Amount of Cash Dividends unpaid,		1,290.00
Amount of outstanding Scrip for Profits,		47,166.00
Amount of all other claims against the Company,		64,029.12
Amount of Premium Account for 1870,	\$1,021,805.96	
Amount Insured by Existing Policies,	129,006,380.00	
Estimated amount required to reinsure Existing Policies,		460,806.65

Estimated liabilities, exclusive of Capital, . \$637,141.77

### Miscellaneous Items.

Gross Receipts from all sources in 1870,	\$1,032,352.02
Amount of Losses paid in 1870,	\$258,040.30
Amount of Salaries paid in 1870,	114,231.07
Amount of Commission and Agency Expenses paid in '70,	140,001.56
Amount of State and other Taxes paid in 1870,	40,673.92
Amount of Stationery and Advertising paid in 1870,	101,843.32
Amount of Dividends paid in 1870,	207,242.42
	\$862,032.59

Receipts over Payments, . 170,319.43

CYRUS PECK, *Secretary.*

GEORGE T. HOPE, *President.*

SHERMAN HARTWELL, Bridgeport, *Attorney.*

*Statement of the Condition of the EXCELSIOR FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Amount of Capital Stock paid in, . . . . .	\$200,000.00
Accumulations and Balances treated as Assets, . . . . .	135,723.88
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Whole amount of Actual Capital and Surplus, . . . . .	\$335,723.88
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**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$10,548.91
Real Estate owned by the Company, . . . . .	66,000.00
Losses on Real Estate, . . . . .	62,699.00
Losses on Collaterals, . . . . .	108,551.23
Invested in State, City, Town and County Securities, . . . . .	300.00
Invested in United States Securities, . . . . .	70,254.00
Invested in other Stocks, Bonds and Securities, . . . . .	990.00
Due from Agents, \$9,773.45. Other Premiums, treated as Assets, \$4,905.69, . . . . .	11,679.14
Accrued Rents, Interest, &c., . . . . .	3,453.27
Other Assets, viz: Rents Accrued, U. S. Revenue Stamps, Furniture, &c., . . . . .	6,248.83
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Total Assets, . . . . .	\$335,723.88
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**Liabilities.**

Losses and Claims not acknowledged, . . . . .	\$1,500.00
Amount Insured under existing Policies, . . . . .	17,302,617.11
Estimated amount required to reinsure the same, . . . . .	82,396.00
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Estimated liabilities, exclusive of Capital, . . . . .	\$82,396.00
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**Miscellaneous Items.**

Gross Receipts in 1870, . . . . .	\$198,813.86
Amount of Losses paid in 1870, . . . . .	\$101,397.45
Amount of Salaries paid in 1870, . . . . .	22,110.72
Amount of Commissions and Agency Expenses paid in 1870, . . . . .	28,549.34
Amount of State and other Taxes paid in 1870, . . . . .	11,935.27
Amount of Rents and Office Expenses paid in 1870, . . . . .	5,888.86
Printing and Stationery, paid in 1870, . . . . .	20,005.00
All other Expenses paid in 1870, . . . . .	2,230.78
Gross Disbursements paid in 1870, . . . . .	\$192,117.42
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Receipts over Payments, . . . . .	\$6,696.44

SAMUEL M. CRAFTS, *Secretary.*

W. F. HODGES, *President.*

CYPRIAN WILLCOX, *New Haven, Attorney.*



*Statement of the Condition of the FIREMEN'S INSURANCE COMPANY-  
of New York City, N. Y., on the 1st day of January, 1871, made to the Com-  
missioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$200,000.00
Amount actually paid in, . . . . .	\$204,000.00
Amount of Assets treated as Surplus, . . . . .	155,960.79
Whole amount of actual Capital and Surplus, . . . . .	<u>\$359,960.79</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$9,227.81
Amount of First Mortgages on Real Estate, . . . . .	83,500.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	500.00
Amount of United States Securities, . . . . .	225,605.00
Amount of State, City, Town and County Securities, . . . . .	700.00
Amount due from Agents \$6,684.03. Office Premiums due, \$3,492.29, . . . . .	10,176.32
Amount of all other Assets, viz: Interest, Office Furniture, Sofas, Maps, &c., . . . . .	30,251.66
Total Assets, . . . . .	<u>\$359,960.79</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$11,468.00
Amount of Losses unadjusted, \$112.43. Losses resisted, \$3,000.00, . . . . .	14,243.00
Amount of all other Claims against the Company, . . . . .	45.97
Estimated amount required to reinsure existing Policies, . . . . .	86,644.46
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$112,401.43</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$204,374.51
Amount of Losses paid in 1870, . . . . .	\$130,288.57
Amount of Salaries paid in 1870, . . . . .	19,323.22
Amount of Commission and Agency Expenses paid in 1870, . . . . .	21,037.13
Amount of State and other Taxes paid in 1870, . . . . .	5,834.78
Amount of Rents and Office Expenses paid in 1870, . . . . .	10,503.98
Amount of Dividends paid in 1870, . . . . .	40,800.00
Amount of all other Disbursements paid in 1870, . . . . .	\$217,787.68
Payments over Receipts, . . . . .	<u>\$ 13,413.07</u>

ABNER HAYWARD, *Secretary.*

J. V. HARRIOTT, *President.*

S. C. PRESTON, *Attorney.*

*Statement of the Condition of the FIREMAN'S FUND INSURANCE COMPANY, of San Francisco, Cal., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000
Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	299,626.67
Whole amount of actual Capital and Surplus, . . . . .	<u>799,626.67</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$35,804.84
Amount of Real Estate owned by the Company, . . . . .	150,000.00
Amount of First Mortgages on Real Estate, . . . . .	419,561.00
Amount of Loans Secured by Collaterals and Personal Securities, . . . . .	77,100.00
Amount invested in State, City, Town and County Securities, . . . . .	17,809.43
Amount of Premium Notes, . . . . .	33,466.47
Amount due from Agents, \$6,244.77. Office Premiums due, \$16,581 56, . . . . .	22,826.33
Amount of all other Assets, viz.: Int. due, \$2,593.85. Salva'e, \$1,862.83, . . . . .	4,456.68
Amount of State and U. S. Stamps, . . . . .	1,289.40
Amount of all other Assets, . . . . .	37,312.52
Total Assets, . . . . .	<u>799,626.67</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$18,274.19
Amount of Losses unadjusted, and Losses resisted, . . . . .	26,685.14
Amount of all other claims against the Company, . . . . .	14,997.83
Amount of Premium Account for 1870, . . . . .	317,843.
Amount Insured by existing Policies, . . . . .	\$20,633.927
Estimated amount required to reinsure existing Policies, . . . . .	<u>\$128,298.26</u>
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$188,255.42</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$435,670.20
Amount of Losses paid in 1870, . . . . .	\$206,084.98
Amount of Salaries paid in 1870, . . . . .	30,320.60
Amount of Commission and Agency expenses paid in 1870, . . . . .	35,569.39
Amount of State and other Taxes paid in 1870, . . . . .	16,042.87
Amount of Rents and Office Expenses paid in 1870, . . . . .	25,087.15
Amount of Dividends paid to Stockholders in 1870, . . . . .	80,000.00
Amount of all other Disbursements paid in 1870, . . . . .	12,252.64
Receipts over Payments, . . . . .	<u>\$30,313.17</u>

CHARLES R. BOND, *Secretary.*

D. J. STAPLES, *President.*

C. B. BOWERS, New Haven, *Attorney.*

*Statement of the Condition of the FIRST NATIONAL FIRE INSURANCE COMPANY, of Worcester, Mass., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$100,000.00
Amount actually paid in, . . . . .	\$100,000.00
Amount of Assets treated as Surplus, . . . . .	57,356.12
Whole amount of actual Capital and Surplus, . . . . .	<u>\$157,356.12</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$14,422.80
Amount of First Mortgages on Real Estate, . . . . .	56,500.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	70,425.51
Amount invested in United States Securities, . . . . .	10,812.50
Amount due from Agents and office premiums due, . . . . .	3,813.34
Amount of all other Assets, viz.: Accrued Interest, . . . . .	1,198.72
Amount of Office Furniture, . . . . .	183.25
Total Assets, . . . . .	<u>\$157,356.12</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$6,879.30
Amount of Losses unadjusted, \$1,874; Losses resisted, \$2,500, . . . . .	4,374.00
Amount of Premium Account for 1871, . . . . .	\$128,792.50
Amount Insured by Existing Policies, . . . . .	6,651,822.00
Estimated amount required to reinsure existing Policies, . . . . .	56,896.28
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$68,149.58</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$149,479.51
Amount of Losses paid in 1870, . . . . .	\$92,373.34
Amount of Salaries paid in 1870, . . . . .	4,000.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	18,555.41
Amount of State and other Taxes paid in 1870, . . . . .	6,284.96
Amount of Rents and Office Expenses paid in 1870, . . . . .	5,164.43
Amount of Dividends paid in 1870, . . . . .	3,500.00
Amount of all other Disbursements paid in 1870, . . . . .	562.50
Receipts over payments, . . . . .	<u>\$19,038.87</u>

GEO. E. KENDALL, *Asst. Secretary.*

E. A. GOODNOW, *President.*

F. A. HALL, *Hartford, Attorney.*



*Statement of the Condition of the FRANKLIN FIRE INSURANCE COMPANY, of Philadelphia, Penn., on the 1st. day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital,	\$400,000.
Amount actually paid in,	\$400,000.00
Amount of Assets treated as Surplus,	2,687,452.35
Whole amount of actual Capital and Surplus,	<u>\$3,087,452.35</u>

**Assets.**

Amount of Cash on hand and in Banks,	\$67,928.04
Amount of First Mortgages on Real Estate,	2,717,383.80
Amount of Loans Secured by Collaterals and Personal Securities,	9,900.00
Amount invested in Bank Stock,	28,140.00
Amount invested in Railroad Stock,	22,350.00
Amount invested in Bonds,	17,230.00
Amount invested in United States Securities,	48,200.00
Amount invested in State, City, Town and County Securities,	37,805.50
Amount invested in other Stocks, Bonds and Securities,	55,047.00
Amount due from Agents, \$27,262.52; Office Premiums due, none.	27,262.52
Amount of all other Assets viz: Interest due and Accrued,	43,265.27
Amount of Reinsurance deposit Premiums, 95 p. c.,	2,869.00
Amount of U. S. Revenue Stamps,	71.22
Total Assets,	<u>\$3,087,452.35</u>

**Liabilities.**

Amount of Losses acknowledged,	\$9,260.36
Amount of Losses unadjusted, \$51,907.05    Losses resisted, \$6,500,	58,407.05
Amount of Cash Dividends unpaid,	568.00
Amount of all other claims against the Company,	12,418.75
Amount Reclaimable by the insured on Perpetual Policies,	1,262,382.36
Amount of Premium Account for 1870,	\$625,268.60
Amount Insured by Existing Policies,	101,269,382.82    1,343,036.52

**Miscellaneous Items.**

Gross Receipts from all sources in 1870,	\$738,994 15
Amount of Losses paid in 1870,	\$272,881.70
Amount of Salaries and official expenses paid in 1870,	94,531.22
Amount of Commission and Agency Expenses paid in 1870,	90,086.76
Amount of State and other Taxes paid in 1870,	14,475.54
Amount of Dividends paid in 1870,	140,000.00
Amount of all other Disbursements paid in 1870,	12,821.38    624,796.60
Receipts over payments,	<u>\$114,197.55</u>

JAS. W. McALLISTER, *Secretary.*

ALFRED G. BAKER, *President.*

J. W. SMITH, *Waterbury, Attorney.*

*Statement of the Condition of the FULTON FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	163,001.54
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Whole amount of actual Capital and Surplus, . . . . .	\$363,001.54

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	14,783.66
Amount of First Mortgages on Real Estate, . . . . .	72,350.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	42,230.00
Amount invested in Railroad Stock, . . . . .	5,010.00
Amount secured in Railroad Bonds, . . . . .	177,905.00
Amount invested in United States Securities, . . . . .	4,600.00
Amount due from Agents, \$18,096.90. Office Premiums due, \$5,626.37, 23,723.27	
Amount of all other Assets, viz: Int Salvage Claims, Personal property, 22,399.61	
	<hr/>
Total Assets, . . . . .	\$363,001.54

**Liabilities.**

Estimated amount required to represent the present value, . . . . .	\$3,774.08
Amount of Losses unadjusted, \$17,600. Losses resisted, \$10,000, . . . . .	27,600.00
Amount of all other claims against the Company, . . . . .	15.23
Amount of Premium Account for 1870, . . . . .	\$218,919.52
Amount Insured by Existing Policies, . . . . .	27,557,000.00
Estimated amount required to reinsure existing Policies, . . . . .	109,459.76
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Estimated Liabilities, exclusive of Capital, . . . . .	\$140,849.07

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$242,288.60
Amount of Losses paid in 1870, . . . . .	\$126,334.50
Amount of Salaries paid in 1870, . . . . .	23,100.00
Amount of Commission and Agency Expenses paid in 1870, 33,211.20	
Amount of State and other Taxes paid in 1870, . . . . .	10,675.16
Amount of Rents and Office Expenses paid in 1870, . . . . .	21,145.51
Amount of Dividends paid in 1870, . . . . .	20,000.00
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Receipts over payments, . . . . .	\$7,822.23

JAMES A. RANKIN, *Secretary.*

WM. A. COBB, *President.*

JUDAH FRISBIE, New Haven, *Attorney.*

*Statement of the Condition of the GEORGIA HOME INSURANCE COMPANY, of Columbus, Georgia, on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$350,000	
Amount actually paid in, . . . . .		\$250,000.00
Amount secured to be paid, . . . . .		100,000.00
Amount of Assets treated as Surplus, . . . . .		144,959.55
Whole amount of actual Capital and Surplus,		<u>\$494,959.55</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$9,332.67
Amount of Real Estate owned by the Company, . . . . .	60,000.00
Amount of First Mortgages on Real Estate, . . . . .	7,400.00
Amount of Loans secured by Collaterals and Personal securities, . . . . .	185,128.61
Amount invested in Railroad Stock, . . . . .	25,000.00
Amount invested in Railroad Bonds, . . . . .	81,100.00
Amount invested in State, City, Town and County Securities, . . . . .	77,950.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	34,450.50
Amount due from Agents, \$6,036.32. Office Premiums due, \$5,285.50, . . . . .	11,321.82
Amount of all other Assets, . . . . .	3,275.95
Total Assets, . . . . .	<u>\$494,959.56</u>

**Liabilities.**

Estimated amount required to be deducted from the Assets to bring their cash value, . . . . .	\$6,500.00
Amount of Losses unadjusted, \$8,139.07 Losses resisted, \$2,500, . . . . .	10,639.07
Amount of Cash Dividends unpaid, . . . . .	211.00
Amount of Premium Account for 1870, . . . . .	\$300,752.87
Amount Insured by Existing Policies, . . . . .	15,672,945.00
Estimated amount required to reinsure existing Policies, . . . . .	91,094.50
Estimated liabilities, exclusive of Capital, . . . . .	<u>108,444.57</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$324,141.96
Amount of Losses paid in 1870, . . . . .	118,468.23
Amount of Salaries paid in 1870, . . . . .	13,700.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	57,454.00
Amount of State and other Taxes paid in 1870, . . . . .	20,780.75
Amount of all other Disbursements paid in 1870, . . . . .	21,390.27
Receipts over payments, . . . . .	<u>\$92,448.70</u>

D. F. WILLCOX, *Secretary.*

J. RHODES BROWN, *President.*

CYPRIAN WILLCOX, *New Haven, Attorney.*



*Statement of the Condition of the GERMANIA FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital . . . . .	\$500,000
Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	577,848.00
Whole amount of actual Capital and Surplus, . . . . .	<u>\$1,077,848.90</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$34,294.70
Amount of Real Estate owned by the Company, . . . . .	58,946.45
Amount of First Mortgages on Real Estate, . . . . .	341,000.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	43,400.00
Amount invested in Bank Stock, . . . . .	7,500.00
Amount invested in United States Securities, . . . . .	495,650.00
Amount invested in State, City, Town and County Securities, . . . . .	20,525.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	100.00
Amount of Premium Notes, . . . . .	4,290.93
Amount due from Agents, \$41,183.51. Office Premiums due, \$2,372.46. . . . .	46,555.97
Amount of all other Assets, viz: Salv. Losses paid, \$3,000; Rents, \$750. . . . .	3,750.00
Int. accrued, office Fixtures, Stamps, &c., . . . . .	21,835.85
Total Assets, . . . . .	<u>\$1,077,848.90</u>

**Liabilities.**

Amount of Losses unadjusted, . . . . .	\$72,294.83
Amount of all other claims against the Company, . . . . .	2,575.00
Amount of Premium Account for 1870, . . . . .	\$576,330.03
Amount Insured by Existing Policies, . . . . .	596,923. 62
Estimated amount required to reinsure existing Policies, . . . . .	298,461.82
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$373,331.65</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$647,087.29
Amount of Losses paid in 1870, . . . . .	\$287,132 40
Amount of Salaries paid in 1870, . . . . .	51,578.91
Amount of Commission and Agency Expenses paid in 1870, . . . . .	91,379.98
Amount of State and other Taxes paid in 1870, . . . . .	27,497.53
Amount of Rents and Office Expenses paid in 1870, . . . . .	83,384.64
Amount of Dividends paid in 1870, . . . . .	50,000.00
Amount of all other Disbursements paid in 1870, . . . . .	7,985 99 598,859 45
Receipts over payments, . . . . .	<u>48,227.84</u>

JOHN EDW. KAHL, *Secretary.*

HUGO SCHUMANN, *President.*

C. C. KIMBALL, *Hartford, Attorney.*

*Statement of the Condition of the GIRARD FIRE AND MARINE INSURANCE COMPANY, of Philadelphia, Penn., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$300 000
Amount actually paid in, . . . . .	\$200,000 00
Amount of Assets treated as Surplus, . . . . .	203,062.24
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Whole amount of actual Capital and Surplus,	\$403,062.24

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$21,816.29
Amount of Real Estate owned by the Company, . . . . .	158,000.00
Amount of First Mortgages on Real Estate, . . . . .	122,050.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	13,667.66
Amount invested in Railroad Bonds, . . . . .	13,700.00
Amount invested in United States Securities, . . . . .	30,736.50
Amount invested in State, City, Town and County Securities, . . . . .	7,800.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	13,230.00
Amount due from Agents, . . . . .	\$7,003.80
Amount of all other Assets, viz: Int. and Rent accrued, Furniture, Safe, due on Real Estate, . . . . .	15,057.99
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Total Assets, . . . . .	\$403,062.24

### Liabilities.

Amount of Losses unadjusted, . . . . .	\$31,786.99
Amount of all other claims against the Company, . . . . .	794.85
Amount of Premium Account for 1870, . . . . .	\$153,196.20
Amount Insured by Existing Policies, . . . . .	16,680,335.00
Estimated amount required to reinsure existing Policies, . . . . .	82,478.04
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Estimated liabilities, exclusive of Capital, . . . . .	\$115,059.88

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$146,399.13
Amount of Losses paid in 1870, . . . . .	\$101,949.06
Amount of Salaries paid in 1870, . . . . .	13,406.66
Amount of Commission and Agency Expenses paid in 1870, . . . . .	14,950.52
Amount of State and other Taxes paid in 1870, . . . . .	11,865.29
Amount of Rents and Office Expenses paid in 1870, . . . . .	13,793.39
Amount of Dividends paid in 1870, . . . . .	9,980.00
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Payments over Receipts, . . . . .	\$20,205.79

JAS. B. ALVORD, *Secretary.*

THOMAS CRAVEN, *President.*

RALPH GILLET, Hartford, *Attorney.*

*Statement of the Condition of the GLENS FALLS INSURANCE COMPANY,  
of Glens Falls, N. Y., on the 1st day of January, 1871, made to the Commis-  
sioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$200,000.00
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	371,123.06
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Whole amount of actual Capital and Surplus, . . . . .	\$571,123.06
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### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$51,858.25
Amount of Real Estate owned by the Company, . . . . .	10,513 82
Amount of First Mortgages on Real Estate, . . . . .	96,422.11
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	9,000.00
Amount invested in Bank Stock, . . . . .	15,000.00
Amount invested in United States Securities, . . . . .	363,811.50
Amount invested in State, City, Town and County Securities, . . . . .	4,182.56
Amount due from Agents, and Office Premiums due, . . . . .	14,599.26
Amount of all other Assets, viz.: Rents and Int., office Furn. &c., . . . . .	5,735.56
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Total Assets, . . . . .	\$571,123.06
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### Liabilities.

Estimated amount required to be deducted from the Assets to bring their cash value, . . . . .	800.00
Amount of Losses unadjusted and resisted, . . . . .	37,415.00
Amount of all other claims against the Company, . . . . .	1,207.12
Amount of Premium Account for 1870, . . . . .	\$275,226.24
Amount Insured by Existing Policies, . . . . .	65,215,751.00
Estimated amount required to reinsure existing Policies, . . . . .	\$289,475.34
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Estimated liabilities, exclusive of Capital, . . . . .	\$328,897.46
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### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$308,344 50
Amount of Losses paid in 1870, . . . . .	\$193,654.43
Amount of Salaries paid in 1870, . . . . .	14,966.69
Amount of Commission and Agency Expenses paid in 1870, . . . . .	46,372.10
Amount of State and other Taxes paid in 1870, . . . . .	11,775.55
Amount of Dividends paid in 1870, . . . . .	20,000.00
Amount of all other Disbursements paid in 1870, . . . . .	11,362.94
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Receipts over payments, . . . . .	\$10,212.79
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A. NEWTON LOCKE, *Secretary.*

A. SHERMAN, *President.*

SELLECK Y. ST. JOHN, New Canaan, *Attorney.*

*Statement of the Condition of the HANOVER FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$400,000
Amount actually paid in, . . . . .	\$400,000.00
Amount of Assets treated as Surplus, . . . . .	300,334.64
Whole amount of actual Capital and Surplus, . . . . .	<u>\$700,334.64</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$15,074.78
Amount of First Mortgages on Real Estate, . . . . .	109,100.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	21,000.00
Amount invested in United States Securities, . . . . .	433,437.50
Amount invested in State, City, Town and County Securities, . . . . .	37,839.50
Amount of Premium Notes, . . . . .	8,040.92
Amount due from Agents, \$42,656.61. Office Premiums due, \$3,538.19	46,194.80
Amount of all other Assets, viz: Acc. Interest, office Furn., Safes, &c.,	29,647.14
Total Assets, . . . . .	<u>\$700,334.64</u>

**Liabilities.**

Amount of Losses acknowledged, unadjusted, and Losses resisted, . . . . .	49,687 14
Amount of Premium Account for 1870, . . . . .	\$471,088.10
Amount Insured by Existing Policies, . . . . .	45,736,350.25
Estimated amount required to reinsure existing Policies, . . . . .	<u>\$246,106 39</u>
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$295,793.53</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$507,456.16
Amount of Losses paid in 1870, . . . . .	\$273,270.14
Amount of Salaries paid in 1870, . . . . .	34,255.91
Amount of Commission and Agency Expenses paid in 1870, . . . . .	73,366.94
Amount of State and other Taxes paid in 1870, . . . . .	24,640.14
Amount of Dividends paid in 1870, . . . . .	40,000.00
Amount of all other Disbursements paid in 1870, . . . . .	77,880.16
Payments over receipts, . . . . .	<u>15,957.13</u>

J. REMSEN LANE, *Secretary.*

B. S. WOLCOTT, *President.*

WILLIAM WALLACE, *Hartford, Attorney.*



*Statement of the Condition of the HOLYOKE MUTUAL FIRE INSURANCE COMPANY, of Salem, Mass., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Amount of Capital Stock, . . . . .	none.
Accumulations and Balances treated as Assets, . . . . .	\$517,736.48

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$12,848 48
Amount of Real Estate owned by the Company, . . . . .	55,000.00
Amount of Loans on Real Estate, . . . . .	7,823.41
Amount of Loans on Callaterals, . . . . .	46,500.00
Amount invested in Bank Stocks, . . . . .	53,597.00
Amount invested in State, City, Town and County Securities, . . . . .	35,625.00
Amount invested in Railroad Stocks, . . . . .	17,000.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	4,500.00
Amount invested in Railroad Bonds, . . . . .	11,765.00
Amount of Premium Notes, . . . . .	271,080.47
Amount due from Agents, . . . . .	366.14
Amount of Accrued Rents, Interest, office Furniture, &c., . . . . .	1,630.98
Total Assets, . . . . .	\$217,736.48

**Liabilities.**

Amount of Losses not acted upon, . . . . .	\$700.00
Amount of all other Cash Liabilities, . . . . .	205.65
Amount of Premium Account for 1870, . . . . .	\$100,491.11
Amount Insured under existing Policies, . . . . .	17,846,269.49
Estimated amount required to reinsure existing Policies, . . . . .	135,540.23
Total Liabilities, . . . . .	\$136,445.88

**Miscellaneous.**

Gross Receipts from all sources in 1870, . . . . .	\$115,283.02
Amount of Losses paid in 1870, . . . . .	\$30,465.14
Amount of Salaries paid in 1870, . . . . .	6,995.37
Amount of Commission and Agency Expenses paid in 1870, . . . . .	15,580.35
Amount of State and other Taxes paid in 1870, . . . . .	3,297.77
Amount of Rents and Office Expenses paid in 1870, . . . . .	1,881.19
Amount of Dividends paid in 1870, . . . . .	12,793.53
Receipts over payments, . . . . .	44,269.67

THOMAS H. JOHNSON, *Secretary.*

AUGUSTUS STORY, *President.*

S. T. HOLLBROOK, *Norwich, Attorney.*

*Statement of the Condition of the HIDE AND LEATHER INSURANCE COMPANY, of Boston, Mass., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000
Amount actually paid in, . . . . .	\$300,000.00
Amount of Assets treated as Surplus, . . . . .	119,211.34
Whole amount of actual Capital and Surplus, . . . . .	<u>\$419,211.34</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$16,165.22
Amount of First Mortgages on Real Estate, . . . . .	104,500.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	36,800.00
Amount invested in Bank Stock, . . . . .	4,550.00
Amount invested in Railroad Stock, . . . . .	8,500.00
Amount invested in Railroad Bonds, . . . . .	65,487.50
Amount invested in United States Securities, . . . . .	102,793.75
Amount invested in State, City, Town and County Securities, . . . . .	14,775.00
Amount of Premium Notes, . . . . .	40,623.34
Amount due from Agents, \$8,326.76 ; Office Premiums due, \$7,464.09, . . . . .	15,790.85
Amount of all other Assets, viz.: Accrued Interest, office Furniture, Safes, and Rents due, . . . . .	9,225.68
Total Assets, . . . . .	<u>\$419,211.34</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$16,770.00
Amount of all other claims against the Company, . . . . .	2,023.58
Amount of Premium Account for 1870, . . . . .	\$179,977.81
Amount Insured by Existing Policies, . . . . .	14,361,698.50
Estimated amount required to reinsure existing Policies, . . . . .	104,872.65
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$123,666.23</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$265,943.29
Amount of Losses paid in 1870, . . . . .	\$196,613.10
Amount of Salaries paid in 1870, . . . . .	11,466.42
Amount of Commission and Agency Expenses paid in '70, . . . . .	54,478.31
Amount of State and other Taxes paid in 1870, . . . . .	13,228.67
Amount of Dividends paid to Stockholders in 1870, . . . . .	12,000.00
Amount of all other Disbursements paid in 1870, . . . . .	287,786.50
Payments over receipts, . . . . .	<u>\$23,843.21</u>

OLIVER H. COLE, *Secretary.*

JNO. W. CARTWRIGHT, *President.*

GEO. S. LESTER, New Haven, *Attorney.*

*Statement of the Condition of the HOME INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$2,500,000
Amount actually paid in, . . . . .	\$2,500,000.00
Amount of Assets treated as Surplus, . . . . .	2,078,008.02
Whole amount of actual Capital and Surplus, . . . . .	<u>\$4,578,008.02</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$174,478.68
Amount of Real Estate owned by the Company, . . . . .	1,500.00
Amount of First Mortgages on Real Estate, . . . . .	1,837,615.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	249,300.00
Amount invested in Bank Stock, . . . . .	133,425.00
Amount invested in United States Securities, . . . . .	1,380,937.50
Amount invested in State, City, Town and County Securities, . . . . .	564,390.00
Amount of Premium Notes, . . . . .	9,096.71
Amount due from Agents, \$66,769.47. Office Premims due, \$6,427.25, 73,196.72	
Amount of all other Assets, viz: Int. due, \$48,256.83; Steamer Magnet and Wrecking Apparatus, \$23,085.77; Stamps and Per. property, \$82,725.81, 154,068.41	
Total Assets, . . . . .	<u>\$4,578,008.02</u>

### Liabilities.

Amount of Losses unadjusted, \$180,268.71. Losses resisted, \$19,100, 199,368.71	
Amount of Cash Dividends unpaid, . . . . .	300.00
Amount of Premium Account for 1870, . . . . .	\$2,149,622.09
Amount insured by existing Policies, . . . . .	242,265.347.00
Estimated amount required to reinsure existing Policies, . . . . .	1,313,587.90
Estimated Liabilities, exclusive of Capital, . . . . .	<u>\$1,513,256.61</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$2,427,308.80
Amount of Losses paid in 1870, . . . . .	\$1,288,415.84
Amount of Salaries paid in 1870, - . . . .	283,089.95
Amount of Commission and Agency Expenses paid in 1870, . . . . .	299,021.01
Amount of State and other Taxes paid in 1870, . . . . .	102,661.24
Amount of Dividends paid in 1870, . . . . .	200,220.00
Amount of all other Disbursements paid in 1870, . . . . .	162,230.14 2,335,638.18
Receipts over Payments, . . . . .	<u>\$91,670.62</u>

J. H. WASHBURN, *Secretary.*

C. J. MATTIN, *President.*

GARDNER MORSE, *Attorney.*

*Statement of the Condition of the HOME INSURANCE COMPANY, of  
Columbus, Ohio, on the 1st day of January, 1871, made to the Commissioner of  
Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000.	
Amount actually paid in, . . . . .		\$500,000.00
Amount of Assets treated as Surplus, . . . . .		138,447.34
Whole amount of Capital and Surplus, . . . . .		<u>\$638,447.34</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$58,838.05	
Amount of Real Estate owned by the Company, . . . . .	1,727.80	
Amount of First Mortgages on Real Estate, . . . . .	334,055.23	
Amount invested in Bonds, . . . . .	5,000.00	
Amount of United States Securities, . . . . .	109,338.00	
Amount of State, City, Town and County Securities, . . . . .	18,500.00	
Amount invested in other Stocks, Bonds and Securities, . . . . .	695.92	
Amount of Premium Notes, . . . . .	8,011.62	
Amount due from Agents, . . . . .	66,647.89	
Amount of all other Assets, viz: Interest Accrued but not due, . . . . .	18,864.41	
Rev. Stamps, accrued Int. on Bills acc'pt, . . . . .	202.95	
Office Furn., Supplies, Charts, Signs, &c., . . . . .	16,565.47	
Total Assets, . . . . .		<u>\$638,347.34</u>

**Liabilities.**

Estimated amount required to be deducted from the Assets to bring their cash value, . . . . .	500.00	
Amount of Losses unadjusted, \$17,165. Losses resisted, \$765, . . . . .	\$17,930.00	
Amount of Premium account for 1870, . . . . .	\$208,600.75	
Amount Insured by Existing Policies, . . . . .	20,605,896.00	
Estimated amount required to reinsure existing Policies, . . . . .	74,824.65	
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$93,254.65</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$274,421.76	
Amount of Losses paid in 1870, . . . . .	\$73,921.22	
Amount of Salaries paid in 1870, . . . . .	10,506.20	
Amount of Commission and Agency Expenses paid in 1870, . . . . .	43,285.32	
Amount of State and other Taxes paid in 1870, . . . . .	8,314.91	
Amount of Rents and Office Expenses paid in 1870, . . . . .	3,461.33	
Amount of all other disbursements paid in 1870, . . . . .	17,836.91	157,325.89
Receipts over payments, . . . . .		<u>117,095.87</u>

W. C. M. BAKER, *Secretary.*

C. P. L. BUTLER, *President.*

JUDAH FRISBIE, New Haven, *Attorney.*



*Statement of the Condition of the HOPE INSURANCE COMPANY, of Providence, R. I., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$500,000.
Amount actually paid in, . . . . .	\$150,000.00
Amount of Assets treated as Surplus, . . . . .	61,672.92
Whole amount of actual Capital and Surplus, . . . . .	<u>\$211,672.92</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$5,398.98
Amount invested in Bank Stock, . . . . .	175,832.50
Amount invested in United States Securities, . . . . .	10,800.00
Amount due from Agents, \$8,285.96. Office Premiums due, \$7,905.68,	16,191.64
Amount of all other Assets, viz.: Office Furn. and other per. Property,	1,200.00
Interest Accrued and due, . . . . .	2,250.00
Total Assets, . . . . .	<u>\$211,672.92</u>

### Liabilities.

Amount of Losses acknowledged, . . . . .	\$10,765.44
Amount of Losses unadjusted. \$250. Losses resisted, \$3,618.75	3,868.75
Amount of Cash Dividends unpaid, . . . . .	1,006.50
Amount of all other claims against the Company, . . . . .	20,000.00
Amount of Premium Account for 1870, . . . . .	\$95,570.52
Amount insured by Existing Policies, . . . . .	5,437,109.63
Estimated amount required to reinsure existing Policies, . . . . .	34,599.53
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$70,240.22</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$102,874.47
Amount of Losses paid in 1870, . . . . .	\$83,325.37
Amount of Salaries paid in 1870, . . . . .	4,660.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	161,119.84
Amount of State and other Taxes paid in 1870, . . . . .	2,714.54
Amount of Rents and Office Expenses paid in 1870, . . . . .	2,780.04
Amount of Dividends paid in 1870, . . . . .	12,992.50
Amount of all other Disbursements paid in 1870, . . . . .	656.27
Payments over receipts, . . . . .	<u>\$20,374.09</u>

JOSEPH MARTIN, *Secretary.*

WILLIAM T. BARTON, *President.*

C. C. KIMBALL, *Hartford, Attorney.*

*Statement of the Condition of the HOWARD INSURANCE COMPANY, of  
New York City, N. Y., on the 1st day of January, 1871, made to the Commis-  
sioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000.
Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	283,850.72
Whole amount of actual Capital and Surplus, . . . . .	<u>\$783,850.72</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$26,738.38
Amount of Real Estate owned by the Company, . . . . .	90,000.00
Amount of First Mortgages on Real Estate, . . . . .	87,220.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	17,600.00
Amount invested in Bank Stock, . . . . .	34,300.00
Amount invested in United States Securities, . . . . .	412,000 00
Amount invested in State, City, Town and County Securities, . . . . .	63,725.00
Amount of other Stocks, Bonds and Securities, . . . . .	42,000.00
Amount due from Agents, \$2,345.89 ; Office Premiums due, \$2,092.37, . . . . .	4,438.26
Amount of all other Assets, viz.: Interest Accrued, . . . . .	4,512.41
Rents on Real Estate, . . . . .	966.67
Salvage and return duties, . . . . .	1,350 00
Total Assets, . . . . .	<u>\$783,850 72</u>

**Liabilities.**

Amount of Losses unadjusted, \$6,517.50. Losses resisted, \$5,000, . . . . .	11,617.50
Amount of Cash Dividends unpaid, . . . . .	27.00
Amount of other claims against the Company, . . . . .	154.70
Amount of Premium Account for 1870, . . . . .	\$155,636.10
Amount Insured by Existing Policies, . . . . .	20,272,202.00
Estimated amount required to reinsure existing Policies, . . . . .	69,338.78
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$81,337.98</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$202,001.73
Amount of Losses paid in 1870, . . . . .	\$49,134.32
Amount of Salaries paid in 1870, . . . . .	21,867.11
Amount of Commission and Agency Expenses paid in 1870, . . . . .	15,100 10
Amount of State and other Taxes paid in 1870, . . . . .	12,725.39
Amount of Rents and Office Expenses paid in 1870, . . . . .	4,292.45
Amount of Dividends paid in 1870, . . . . .	60,153.00
Amount of all other Disbursements paid in 1870, . . . . .	9,484.56
Receipts over payments, . . . . .	<u>29,244.30</u>

THEODORE KEELER, *Secretary.*

*President.*

CALEB MIX, New Haven, *Attorney.*

*Statement of the Condition of the INDEPENDENT INSURANCE COMPANY, of Boston, Mass., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$300,000.
Amount actually paid in, . . . . .	\$300,000.00
Amount of Assets treated as Surplus, . . . . .	343,547.92
Whole amount of actual Capital and Surplus, . . . . .	<u>\$643,547.92</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$22,839.62
Amount of First Mortgages on Real Estate, . . . . .	65,500.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	83,000.00
Amount invested in Bank Stock, . . . . .	16,500.00
Amount invested in Railroad Stock, . . . . .	8,875.00
Amount invested in United States Securities, . . . . .	165,750.00
Amount invested in State, City, Town and County Securities, . . . . .	140,800.00
Amount of Premium Notes, . . . . .	28,127.42
Amount due from Agents, and Office Premiums due, . . . . .	16,000.00
Amount of all other Assets, viz: Salv., \$5,000; Int Accrued, \$4,275 98	9,275.98
Bills Receivable taken for Marine, . . . . .	86,879.90
Total Assets, . . . . .	<u>\$643,547.92</u>

### Liabilities.

Amount of Losses acknowledged, . . . . .	\$48,284.78
Amount of Losses unadjusted, \$48,654.48. Losses resisted, \$8,500 (liability denied), . . . . .	48,654.48
Amount of all other claims against the Company, . . . . .	4,905.76
Estimated amount required to reinsure existing Policies, . . . . .	229,453.99
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$331,299.01</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$479,321.26
Amount of Losses paid in 1870, . . . . .	352,839.18
Amount of State and other Taxes paid in 1870, . . . . .	97,521.61
Amount at Risk, . . . . .	21,878,696.00
Amount of all other Disbursements paid in 1870, . . . . .	21,000.00
Receipts over Payments, . . . . .	<u>\$7,960.47</u>

GEO. A. EASTMAN, *Secretary.*

GEO. O. HOVEY, *President.*

GEO. S. LESTER, New Haven, *Attorney.*

*Statement of the Condition of the INTERNATIONAL INSURANCE COMPANY, of New York, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000	
Amount actually paid in, . . . . .		\$500,000.00
Amount of Assets treated as Surplus, . . . . .		819,151.24
Whole amount of actual Capital and Surplus,		<u>\$1,319,151.24</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$47,521.67
Amount of Real Estate owned by the Company, . . . . .	171,052.27
Amount of First Mortgages on Real Estate, . . . . .	137,000.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	185,000.00
Amount invested in State, City, Town and County Securities, . . . . .	164,700.00
Amount invested in United States Securities, . . . . .	568,000.00
Amount due from Agents, \$32,623.00; Office Prem's due, \$6,816.22, . . . . .	40,440.72
Amount of all other Assets, viz: Interest Accrued, . . . . .	3,069.92
Rents " . . . . .	2,366.66
Total Assets, . . . . .	<u>\$1,319,151.24</u>

**Liabilities.**

Losses unadjusted \$56,064.89; Losses resisted, . . . . .	\$55,967.09,	112,031.94
Amount of all other claims against the Company, . . . . .		4,167.68
Amount of Premium Account for 1870, . . . . .	\$641,347.91	
Amount Insured by Existing Policies, . . . . .	59,005,773	
Estimated amount required to reinsure existing Policies, . . . . .		360,200.00
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$476,399.62</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$737,974.58
Amount of Losses paid in 1870, . . . . .	\$419,172.58
Amount of Salaries paid in 1870, . . . . .	64,996.52
Amount of Commission and Agency Expenses paid in 1870, . . . . .	93,885.54
Amount of State and other Taxes paid in 1870, . . . . .	31,002.89
Amount of Rents and Office Expenses paid in 1870, . . . . .	29,327.73
Amount of Dividends paid in 1870, . . . . .	52,631.58
Amount of all other Disbursements paid in 1870, . . . . .	24,650.53
Receipts over Payments, . . . . .	<u>\$22,297.21</u>

WM. J. HUGHES, *Secretary.*

GEO. W. SAVAGE, *President.*

S. C. PRESTON, Hartford, *Attorney.*



*Statement of the Condition of the INSURANCE COMPANY OF NORTH AMERICA, of Philadelphia, Penn., on the 1st day of January, 1871, made to the Commisisoner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$500,000.
Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	2,550,535.64
Whole amount of actual Capital and Surplus, . . . . .	<u>\$3,050,535.64</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$281,648.14
Amount of Real Estate owned by the Company, . . . . .	30,000.00
Amount of First Mortgages on Real Estate, . . . . .	834,950.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	31,433.74
Amount invested in Bank Stock, . . . . .	15,700.00
Amount invested in Railroad Stock and Bonds, . . . . .	310,314.50
Amount invested in United States Securities, . . . . .	325,932.50
Amount invested in State, City, Town and County Securities, . . . . .	594,820.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	104,716.00
Amount of Premium Notes, . . . . .	350,626.48
Amount due from Agents, \$50,656.95; office Premiums due, \$87,793.48, . . . . .	138,450.43
Amount of all other Assets, viz: Interest due and unpaid, . . . . .	16,208.28
Debts due in account, . . . . .	16,335.57
Total Assets, . . . . .	<u>\$3,050,535.64</u>

### Liabilities.

Amount of Losses unadjusted, \$177,500. Losses resisted, \$25,400 . . . . .	202,900.00
Amount of Cash Dividends unpaid, . . . . .	5,500.00
Amount of Premium Account for 1870, . . . . .	\$1,572,234.19
Amount required to insure existing Policies, . . . . .	106,046,825.03
	<u>1,046,050.22</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$2,148,750.88
Amount of Losses paid in 1870, . . . . .	\$1,136,941.50
Amount of Salaries paid in 1870, . . . . .	45,500.00
Amount of Commission and Agency Expenses paid in ,70, . . . . .	282,744.44
Amount of State and other Taxes paid in 1870, . . . . .	63,856.33
Amount of Dividends paid in 1870, . . . . .	97,500.00
	<u>1,629,542.37</u>
Receipts over Payments, . . . . .	\$519,208.51

CHAS. H. REEVES, *Assist Secretary.* CHAS. PLATT, *Vice President.*  
C. C. KIMBALL, *Hartford, Attorney.*

*Statement of the Condition of the LAMAR FIRE INSURANCE COMPANY,  
of New York City, N. Y., on the 1st day of January, 1871, made to the Com-  
missioner of Insurance of Connecticut.*

**Capital.**

Amount of Capital Stock paid in, . . . . .	\$300,000.00
Amount of Assets treated as Surplus, . . . . .	251,401.90
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Whole amount of Assets, . . . . .	\$551,401.90

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$24,469.72
Amount of Loans on Real Estate, . . . . .	114,350.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	10,200.00
Amount Invested in Bank Stocks, . . . . .	47,700.00
Amount Invested in State, City, Town and County Securities, . . . . .	800.00
Amount invested in United States Securities, . . . . .	334,800.00
Amount due from Agents, \$1,971.45; Office Premiums due, \$7,668.41, . . . . .	9,639.86
Amount of Accrued Interest, Salvages on Losses already paid, . . . . .	2,607.95
Amount of all other Assets, . . . . .	6,834.37
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Total Assets, . . . . .	\$551,401.90

**Liabilities.**

Amount of Losses and Claims not acknowledged, . . . . .	\$7,500.00	
Amount of Losses not acted upon, . . . . .	9,900.00	17,400.00
Amount of Premiums received in 1870, . . . . .	146,101.16	
Amount Insured under existing Policies, . . . . .	12,858,640.00	
Estimated amount required to reinsure Existing Policies, . . . . .		80,957.17

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$181,928.25
Amount of Losses paid in 1870, . . . . .	\$93,700.87
Amount of Salaries paid in 1870, . . . . .	20,290.10
Amount of Commission and Agency Expenses paid in 1870, . . . . .	13,378.19
Amount of State and other Taxes paid in 1870, . . . . .	8,958.28
Amount of Dividends paid in 1870, . . . . .	39,000.00
Amount of Rents and office expenses paid in 1870, . . . . .	10,215.37
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Payments over Receipts, . . . . .	\$3,614.56

WM. R. MACDIARMID, *Secretary.*

J. R. ST. JOHN, *President.*

JUDAH FRISBIE, New Haven, *Attorney.*

*Statement of the Condition of the LYCOMING FIRE INSURANCE COMPANY, of Muncy, Penn., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Actual Capital paid in, . . . . .	none.
Assets treated as Capital, . . . . .	\$6,624,222.94

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$55,448.31
Amount of Real Estate owned by the Company, . . . . .	6,000.00
Amount of First Mortgages on Real Estate, . . . . .	2,000.00
Amount invested in Railroad Bonds, . . . . .	4,000.00
Amount invested in United States Securities, . . . . .	22,600.00
Premium Notes, . . . . .	6 223,847.18
Amount due from Agents, \$54,197.78; Office Premiums due, . . . . .	54,197.78
Amount of all other Assets, viz., Judg. secured by Coll., . . . . .	1,229.69
Interest, . . . . .	78.66
Rents accrued, . . . . .	1,870.50
U. S. Stamps, . . . . .	350.00
Assessments, . . . . .	42,822.25
Assessments not due and Int., . . . . .	211,461.57
Total Assets, . . . . .	<u>\$6,624,222.94</u>

### Liabilities.

Estimated amount required to be deducted from the Assets to bring their cash value, . . . . .	\$31,970.00
Amount of Losses acknowledged, . . . . .	6,605.44
Amount of Losses unadjusted, \$29,433.44    Losses resisted, \$6,200.00	35,633.44
Amount of all other claims against the Company, . . . . .	2,585.30
Amount of Premium Account for 1870, . . . . .	\$454,964.35
Amount Insured by Existing Policies, . . . . .	51,822,231.24
Estimated amount required to reinsure Existing Policies, . . . . .	177,348.11
Estimated Liabilities, . . . . .	<u>\$254,142.29</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$685,594.75
Amount of Losses paid in 1870, . . . . .	\$437,891.69
Amount of Salaries paid in 1870, . . . . .	22,708.56
Amount of Commissions and Agency expenses in 1870, . . . . .	95,097.52
Amount of State and other Taxes, paid in 1870, . . . . .	10,307.41
Amount of Dividends paid in 1870, Premium returned, . . . . .	39,720.51
Amount of all other Disbursements paid in 1870, . . . . .	30,912.60
Receipts over payments, . . . . .	<u>\$48,956.46</u>

JOSHUA BOWMAN, *Secretary.*

R. MONTGOMERY, *President.*

LUCIEN W. SPERRY, New Haven, *Attorney.*

*Statement of the Condition of the LORILLARD FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$3,000,000.	
Amount actually paid in, . . . . .		\$1,000,000.00
Amount of Assets treated as Surplus, . . . . .		715,909.00
Whole amount of actual Capital and Surplus,		<u>\$1,715,909.01</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$65,246.56
Amount of Real Estate owned by the Company, . . . . .	61,500.00
Amount of First Mortgages on Real Estate, . . . . .	474,200.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	67,800.00
Amount invested in United States Securities, . . . . .	772,000.00
Amount invested in State, City, Town and County Securities, . . . . .	72,500.00
Amount of Premium Notes, . . . . .	55,350.00
Amount due from Agents, office Premiums due, and Interest accrued, . . . . .	47,312.45
Total Assets, . . . . .	<u>\$1,715,909.01</u>

**Liabilities.**

Amount of Losses unadjusted, \$39,600. Losses resisted, \$5,000 . . . . .	44,600.00
Amount of Premium Account for 1870, . . . . .	\$517,848.70
Amount Insured by Existing Policies, . . . . .	51,620,441.00
Estimated amount required to reinsure existing Policies, . . . . .	271,245.66
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$315,845.66</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	716,536.47
Amount of Losses paid in 1870, . . . . .	\$318,662.63
Amount of Salaries paid in 1870, . . . . .	52,460.00
Amount of Commissions and Agency Expenses paid in 1870, . . . . .	87,202.52
Amount of State and other Taxes, paid in 1870, . . . . .	38,986.12
Amount of Rents and Office Expenses paid in 1870, . . . . .	66,466.67
Amount of Dividends paid in 1870, . . . . .	100,000.00
Receipts over Payments, . . . . .	<u>\$52,758.53</u>

JNO. C. MILLS, *Secretary.*

CHARLES C. NORWOOD, *President.*

R. S. BURT, *Hartford, Attorney.*



*Statement of the condition of the **MERCHANTS INSURANCE COMPANY**, of Chicago, Illinois, on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000.00
Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	378,252.25
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Whole amount of actual Capital and Surplus, . . . . .	\$878,252.25

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$40,884.74
Amount of Real Estate owned by the Company, . . . . .	263,000.00
Amount of First Mortgages on Real Estate, . . . . .	316,300.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	28,500.00
Amount invested in Bank Stock, . . . . .	5,250.00
Amount invested in Bonds, . . . . .	20,000.00
Amount invested in United States Securities, . . . . .	61,216.50
Amount invested in State, City, Town and County Securities, . . . . .	4,000.00
Amount of other Stocks, Bonds and Securities, . . . . .	12,353.38
Amount of Premium Notes, . . . . .	3,044.14
Amount due from Agents, \$25,930. Office Premiums due, \$22,894.40, . . . . .	48,874.40
Amount of all other Assets, viz: Salv. on Losses, Rents and Int. acc'd, . . . . .	32,857.75
Sch'r Meloma Co's Int., office Furn.	
Stationery, &c., . . . . .	
Due from other Companies for Losses, 19,979.75	
<hr/>	
Total Assets, . . . . .	\$878,252.25

**Liabilities.**

Amount of Losses unadjusted, \$19,900. Losses resisted, \$4,690. . . . .	\$24,590.00
Estimated amount required to reinsure existing Policies, . . . . .	134,348.79
Amount Insured, . . . . .	\$25,960,460
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Estimated liabilities, exclusive of Capital, . . . . .	\$158,938.79

**Miscellaneous Items.**

Gross Receipts from all sources, . . . . .	\$626,192.09
Amount of Losses paid in 1870, . . . . .	\$382,038.76
Amount of Salaries paid in 1870, and Ag'ts trav. fees, . . . . .	661,173.04
Amount of Commission and Agency Expenses paid in 1870, . . . . .	53,564.55
Amount of State and other Taxes paid in 1870, . . . . .	29,731.22
Amount of Rents and Office Expenses paid in 1870, . . . . .	5,051.32
Amount of Dividends paid in 1870, . . . . .	600,000.00
Amount of all other Disbursements paid in 1870, . . . . .	10,101.73
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Receipts over payments, . . . . .	\$19,531.47

WM. E. ROLLO, *Secretary.*

GEO. ARMON, *Vice President.*

GEO. S. LESTER, New Haven, *Attorney.*

*Statement of the Condition of the NARRAGANSETT FIRE AND MARINE  
INSURANCE COMPANY, of Providence, R. I., on the 1st day of January,  
1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$1,000,000.00
Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	293,698.29
Whole amount of actual Capital and Surplus, . . . . .	<u>\$793,698.29</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$7,728.29
Amount of First Mortgages on Real Estate, . . . . .	202,000.00
Amount invested in Bank Stock, . . . . .	307,554.50
Amount invested in State, City, Town and County Securities, . . . . .	159,325.00
Amount of Premium Notes, . . . . .	42,759.80
Amount due from Agents. \$56,731.22; Office Prem's due, \$5,026.44, . . . . .	61,757.66
Amount of all other Assets, viz: Int. account, Bills Receivable, Office Furniture, &c., . . . . .	12,573.04
Total Assets, . . . . .	<u>\$793,698.29</u>

**Liabilities.**

Estimated amount required to be deducted from the Assets to bring their cash value, . . . . .	\$14,543.40
Amount of Losses acknowledged, . . . . .	33,837.94
Amount of Losses unadjusted, \$46,445.10.; Losses resisted, \$9,600.90, . . . . .	56,045.10
Amount of all other claims against the Company, . . . . .	2,513.21
Amount of Premium Account for 1870, . . . . .	\$445,483.26
Amount Insured by Existing Policies, . . . . .	22,826,046 00
Estimated amount required to reinsure existing Policies, . . . . .	200,316.69
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$307,256.34</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$530,352.85
Amount of Losses paid in 1870, . . . . .	\$369,422.55
Amount of Commission and Agency Expenses paid in 1870, . . . . .	51,463.02
Amount of State and other Taxes paid in 1870, . . . . .	17,151.78
Amount of Rents and Office Expenses paid in 1870, . . . . .	31,740.06
Amount of Dividends paid in 1870, . . . . .	40,000.00
Receipts over payments, . . . . .	<u>\$20,575.44</u>
HENRY HARRIS, <i>Secretary.</i>	ALLEN C. PECK, <i>President.</i>
SIMEON SMITH, <i>New London, Attorney.</i>	

*Statement of the Condition of the NATIONAL INSURANCE COMPANY  
of Boston, Mass., on the 1st day of January, 1871, made to the Commissioner  
of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$300,000
Amount actually paid in, . . . . .	\$300,000.00
Amount of Assets treated as Surplus, . . . . .	521,839.77
Whole amount of actual Capital and Surplus, . . . . .	<u>821,839.77</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$35,415.26
Amount of First Mortgages on Real Estate, . . . . .	29,000.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	1,650.00
Amount invested in Bank Stock, . . . . .	377,394.50
Amount invested in Railroad Stock, . . . . .	75,494.00
Amount invested in United States Securities, . . . . .	93,756.25
Amount invested in other Stocks, Bonds and Securities, . . . . .	14,250.00
Amount of Premium Notes, . . . . .	107,830.04
Amount due from Agents, \$72,785 88 Office Premiums due, \$2,659.93, . . . . .	75,445.81
Amount of all other Assets, . . . . .	11,603.91
Total Assets, . . . . .	<u>\$821,839.97</u>

**Liabilities.**

Amount of Losses unadjusted, and Losses resisted, . . . . .	51,261.00
Amount of Cash Dividends unpaid, . . . . .	492.00
Amount of all other claims against the Company, . . . . .	68.83
Amount of Premium Account for 1870, . . . . .	\$622,462.41
Amount Insured by Existing Policies, . . . . .	29,283,530.00
Estimated amount required to reinsure existing Policies, . . . . .	264,543.64
Estimated liabilities, exclusive of Capital, . . . . .	<u>316,365.47</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$656,955.35
Amount of Losses paid in 1870, . . . . .	\$524,941.94
Amount of Salaries paid in 1870, . . . . .	19,146.59
Amount of Commission and Agency Expenses paid in 1870, . . . . .	83,502.10
Amount of State and other Taxes paid in 1870, . . . . .	25,871.44
Amount of Rents and Office Expenses paid in 1870, . . . . .	5,822.05
Amount of Dividends paid in 1870, . . . . .	35,847.47
Amount of Salaries paid in 1870, . . . . .	9,145.91
	<u>704,277.50</u>

Payments over Receipts, . . . . .	\$47,322.15
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GEO. W. KUHN, *Secretary.*

A. H. BEAN, *President.*

C. B. BOWERS, New Haven, *Attorney.*

*Statement of the Condition of the NATIONAL INSURANCE COMPANY,  
of Bangor, Maine, on the 1st day of January, 1871, made to the Commissioner  
of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$300,000.	
Amount actually paid in, . . . . .		\$200,000.00
Amount of Assets treated as Surplus, . . . . .		41,308.58
Whole amount of actual Capital and Surplus,		<u>\$241,308.38</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$8,256.80
Amount of First Mortgages on Real Estate, . . . . .	173,500.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	28,500.00
Amount of Premium Notes for Marine Premiums, not due, . . . . .	13,224.79
Amount due from Agents, and Office Premiums due, . . . . .	12,796.79
Amount of all other Assets, viz: Accrued Int. and office Furn., . . . . .	5,030.00
Total Assets, . . . . .	<u>\$241,308.38</u>

**Liabilities.**

Amount of Losses unadjusted, \$750. . . . .	Losses resisted, . . . . .	\$750.00
Amount of all other claims against the Company, . . . . .		2,019.52
Amount of Premium Account for 1870, . . . . .	\$49,379.48	
Amount Insured by Existing Policies, . . . . .	2,302,440.68	
Estimated amount required to reinsure existing Policies, . . . . .		30,184.40
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$32,953.92</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$21,859.04
Amount of Losses paid in 1870, . . . . .	\$1,714.64
Amount of Salaries paid in 1870, . . . . .	2,324.35
Amount of Commission and Agency Expenses paid in 1870, . . . . .	3,218.52
Amount of State and other Taxes paid in 1870, . . . . .	518.07
Amount of Rents and Office Expenses paid in 1870, . . . . .	3,826.66
Receipts over payments, . . . . .	<u>\$10,256.80</u>

MICHAEL SCHWARTZ, *Secretary.*

HERBERT FULLER, *President.*

L. W. SPERRY, New Haven, *Attorney.*



*Statement of the Condition of the NIAGARA FIRE INSURANCE COMPANY, of New York City, on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$1,000,000.
Amount actually paid in, . . . . .	\$1,000,000.00
Amount of Assets treated as Surplus, . . . . .	804,567.09
Whole amount of actual Capital and Surplus, . . . . .	<u>\$1,804,567.09</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$25,860.15
Amount of Real Estate owned by the Company, . . . . .	28,750.00
Amount of First Mortgages on Real Estate, . . . . .	162,000.00
Amount on Loans secured by Collaterals and Personal Securities, . . . . .	182,700.00
Amount invested in United States Securities, . . . . .	696,147.50
Amount invested in State, City, Town and County Securities, . . . . .	74,300.00
Amount due from Agents, \$56,334.49. Office Premiums due, \$5,791.90	61,126.39
Amount of all other Assets, viz: Int. accrued on Bonds, Mort., &c., . . . . .	35,061.73
Salvage property and claims, Rents due and accrued, Judgments, office Furniture, Supplies, &c., . . . . .	38,621.32
Total Assets, . . . . .	<u>\$1,804,567.09</u>

**Liabilities.**

Amount of Losses unadjusted, \$45,000 ; Losses resisted, \$17,200. . . . .	\$55,100.00
Amount of Cash Dividends unpaid, . . . . .	825.00
Amount of Premium Account for 1870, . . . . .	\$552,213.77
Amount Insured by Existing Policies, . . . . .	55,773,500.00
Estimated amount required to reinsure existing Policies, . . . . .	228,043.81
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$283,968.81</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$630,873.80
Amount of Losses paid in 1870, . . . . .	\$342,361.77
Amount of Salaries paid in 1870, . . . . .	52,000.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	79,704.20
Amount of State and other Taxes paid in 1870, . . . . .	33,446.21
Amount of Dividends paid in 1870, . . . . .	100,460.00
Amount of all other Disbursements paid in 1870, . . . . .	70,988.64
Payments over Receipts, . . . . .	<u>678,960.82</u>
	\$48,087.02

HENRY KIP, *Secretary.*

P. NOTEMAN, *President.*

H. L. & J. S. CANNON, New Haven, *Attorneys.*

*Statement of the Condition of the NORTH AMERICAN FIRE INSURANCE  
COMPANY of New York, N Y., on the 1st day of January, 1871. made to the  
Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000.
Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	270,304.95
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Whole amount of actual Capital and Surplus,	770,304.95

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$20,875.65
Amount of Real Estate owned by the Company, . . . . .	33,000.00
Amount of First Mortgages on Real Estate, . . . . .	214,460.00
Amount of Loans secured by Collateral and Personal Securities, . . . . .	4,100.00
Amount invested in United States Securities, . . . . .	348,905.00
Amount invested in State, City, Town and County Securities, . . . . .	51,800.00
Amount due from Agents, \$33,283.39 Office Prem's due, \$35,253.01, . . . . .	71,536.40
Amount of all other Assets, viz: Acc. Int., \$17,382.07; Rents accrued, \$3,245.83, . . . . .	29,627.90
Personal Property, Supplies, &c, . . . . .	5,000.00
<hr/>	
Total Assets, . . . . .	\$770,304.95

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$5,700.00
Amount of Losses unadjusted, \$31,923.31. Losses resisted, \$7,442. . . . .	39,365.31
Amount of Cash Dividends unpaid, . . . . .	162.50
Amount of Premium Account for 1870, . . . . .	\$365,267.80
Amount Insured by Existing Policies, . . . . .	30,896,640.00
Estimated amount required to reinsure existing Policies, . . . . .	120,004.46
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Estimated liabilities, exclusive of Capital, . . . . .	165,232.27

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$424,190.77
Amount of Losses paid in 1870, . . . . .	\$254,042.98
Amount of Salaries paid in 1870, . . . . .	82,150.22
Amount of Commission and Agency Expenses paid in 1870, . . . . .	57,304.70
Amount of State and other Taxes paid in 1870, . . . . .	31,966.18
Amount of Dividends paid in 1870, . . . . .	50,370.50
Amount of all other Disbursements paid in 1870, . . . . .	42,219.95
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Payments over Receipts, . . . . .	\$49,863.76

F. H. CARTER, *Secretary.*

R. H. BLEEKER, *President.*

CHARLES ROBINSON, New Haven, *Attorney.*

*Statement of the Condition of the MANHATTAN INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	907,788.39
Whole amount of actual Capital and Surplus,	<u>\$1,407,788.39</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$75,111.92
Amount of First Mortgage on Real Estate, . . . . .	307,650.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	188,000.00
Amount invested in United States Securities, . . . . .	651,024.00
Amount of Premium Notes, . . . . .	55,129.06
Amount due from Agents, \$58,249.71 Office Prem's due, \$44,112.92	102,362.63
Amount of all other Assets, viz: Int. acc'd, \$17,310.79; Salv. \$11,200, 28,510.88	
Total Assets, . . . . .	<u>\$1,407,788.39</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$6,000.00
Amount of Losses unadjusted, \$43,100. Losses resisted, \$7,165.31	50,265.31
Amount of Cash Dividends unpaid, . . . . .	1,006.00
Amount of Premium Account for 1870, . . . . .	\$830,761.41
Amount Insured by Existing Policies, . . . . .	60,593,090.00
Estimated amount required to reinsure existing Policies, . . . . .	363,166.30
Estimated liabilities, exclusive of Capital, . . . . .	<u>420,437.61</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$904,583.03
Amount of Losses paid in 1870, . . . . .	\$473,437.31
Amount of Salaries paid in 1870, . . . . .	47,278.83
Amount of Com'n and Agency Expenses paid in 1870, . . . . .	127,479.13
Amount of State and other Taxes paid in 1870, . . . . .	33,884.17
Amount of Rents and Office Expenses paid in 1870, . . . . .	22,800.59
Amount of Dividends paid in 1870, . . . . .	79,600.00
Receipts over Payments, . . . . .	<u>\$120,103.00</u>

GEO. B. HOGSDON, *Secretary.*

ANDREW J. SMITH, *President.*

A. P. COLLINS, New Britain, *Attorney.*

*Statement of the Condition of the MARKET FIRE INSURANCE COMPANY,  
of New York City, N. Y., on the 1st day of January, 1871, made to the Commis-  
sioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$200,000
Amount actually paid in, . . . . .	200,000.00
Amount of Assets treated as Surplus, . . . . .	504,684.29
Whole amount of actual Capital and Surplus, . . . . .	<u>\$704,684.29</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$84,821.98
Amount of First Mortgages on Real Estate, . . . . .	237,482.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	65,725.00
Amount invested in United States Securities, . . . . .	237,950.00
Amount invested in State, City, Town and County Securities, . . . . .	102,000.00
Amount due from Agents, \$11,538.61. Office Prem's due, \$7,585.91, . . . . .	19,124.52
Amount of all other Assets, viz: Int. due and unpaid, . . . . .	7,580.79
Total Assets, . . . . .	<u>\$704,684.29</u>

**Liabilities.**

Amount of Losses unadjusted, \$37,627.20. Losses resisted, \$1,700. . . . .	54,627.20
Amount of all other claims against the Company, int. on outstanding Scrip, . . . . .	17,253.52
Amount of Premium Account for 1870, . . . . .	\$359,747.06
Amount Insured by existing Policies, . . . . .	43,475,367.00
Estimated amount required to reinsure existing Policies, . . . . .	\$174,779.85
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$246,660.57</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$382,783.17
Amount of Losses paid in 1870, . . . . .	\$184,024.22
Amount of Salaries paid in 1870, . . . . .	30,195.86
Amount of Commission and Agency Expenses paid in 1870, . . . . .	74,293.48
Amount of State and other Taxes paid in 1870, . . . . .	15,541.36
Amount of Rents and Office Expenses paid in 1870, . . . . .	11,288.94
Amount of Dividends paid in 1870, . . . . .	24,000.00
Amount of all other Disbursements paid in 1870, . . . . .	12,148.58
Receipts over Payments, . . . . .	<u>\$31,295.73</u>

HENRY P. FREEMAN, *Secretary.*

ASHER TAYLOR, *Vice President.*

EGBERT MARSH, Bridgeport, *Attorney.*



*Statement of the Condition of the MERCHANTS INSURANCE COMPANY, of Providence, R. I., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

Authorized Capital, . . . . .	\$200,000
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	172,199.28
Whole amount of actual Capital and Surplus,	<u>\$372,199.28</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$8,016.78
Amount invested in Bank Stock, . . . . .	274,621.00
Amount invested in United States Securities, . . . . .	75,387.50
Amount of other Stocks, Bonds and Securities, . . . . .	6,000.00
Amount of Premium Notes, Marine, . . . . .	4,046.78
Amount due from Agents, and Office Premiums due, . . . . .	4,127.27
Total Assets, . . . . .	<u>\$372,199.28</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$13,320.00
Amount of Losses unadjusted, \$17,527. Losses resisted, \$9,500. . . . .	27,027.00
Estimated amount required to reinsure existing Policies, . . . . .	85,516.06
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$125,863.06</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$231,170.55
Amount of Losses paid in 1870, . . . . .	\$197,189.12
Amount of Salaries paid in 1870, . . . . .	9,761.97
Amount of Commission and Agency Expenses paid in 1870, . . . . .	28,828.47
Amount of State and other Taxes paid in 1870, . . . . .	9,275.50
Amount of Dividends paid in 1870, . . . . .	16,000.00
Amount of all other Disbursements paid in 1870, . . . . .	1,883.32
Payments over Receipts, . . . . .	<u>\$28,767.83</u>

CHARLES FOSTER, *Secretary.*

WALTER PAINE, *President.*

GEO. S. LESTER, New Haven, *Attorney.*

*Statement of the Condition of the MERCHANTS AND FARMERS MUTUAL  
FIRE INSURANCE COMPANY, of Worcester, Mass., on the 1st day of  
January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Assets.**

Authorized Capital,	Mutual.
Accumulations,	\$732,247.66
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	\$722,247.66

**Assets.**

Amount of Cash on hand and in Banks,	\$8,706.84
Amount of Real Estate owned by the Company,	3,500.00
Amount of First Mortgages on Real Estate,	4,400.00
Amount of Loans Secured by Collaterals and Personal Securities,	6,000.00
Amount invested in Bank Stock,	41,830.00
Amount invested in United States Securities,	118,250.00
Amount invested in State, City, Town and County Securities,	146,504.30
Amount of Premium Notes,	400,000.00
Amount due from Agents, \$2,272.86. Office Premiums due, \$98.37,	2,371.23
Amount of all other Assets, viz: Office Furn., Stationery, Stamp,	685.29
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Total Assets,	\$732,247.66

**Liabilities.**

Amount of Losses acknowledged,	\$2,000.00
Amount of Losses unadjusted,	200,000.00
Amount of Cash Dividends unpaid,	2,077.36
Amount of Premium Account for 1870,	\$122,893.43
Amount Insured by Existing Policies,	25,427,456.00
Estimated amount required to reinsure existing Policies,	\$186,807.48
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Estimated liabilities, exclusive of Capital,	\$192,884.84

**Miscellaneous Items.**

Gross Receipts from all sources in 1870,	\$143,197.84
Amount of Losses paid in 1870,	\$59,321.53
Amount of Salaries paid in 1870,	5,452.00
Amount of Commission and Agency Expenses paid in 1870,	16,829.52
Amount of State and other Taxes paid in 1870,	2,366.17
Amount of Rents and Office Expenses paid in 1870,	4,711.83
Amount of Dividends paid in 1870,	22,330.10
Amount of all other Disbursements paid in 1870,	4,367.61
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Receipts over Payments,	\$27,819.08

E. B. STODDARD, *Secretary.*

ISAAC DAVIS, *President.*

RALPH GILLETTE, *Hartford, Attorney.*

*Statement of the Condition of the OCCIDENTAL INSURANCE COMPANY, of San Francisco, Cal., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$300,000.
Amount actually paid in, . . . . .	\$300,000.00
Amount of Assets treated as Surplus, . . . . .	174,094.53
Whole amount of actual Capital and Surplus, . . . . .	<u>\$474,094.53</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	20,433.80
Amount of First Mortgages on Real Estate, . . . . .	302,761.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	15,390.00
Amount invested in United States Securities, . . . . .	72,750.00
Amount of Premium Notes, . . . . .	30,183.06
Amount due from Agents, and Office Premiums due, . . . . .	25,459.98
Amount of all other Assets, viz: California and Rev. Stamps, . . . . .	1,700.25
Interest due and accrued on Loans, . . . . .	3,298.75
Office Furniture, Salvage, &c., . . . . .	2,117.69
Total Assets, . . . . .	<u>\$474,094.53</u>

### Liabilities.

Amount of Losses acknowledged, . . . . .	\$17,536.23
Amount of Losses unadjusted, and Losses resisted, . . . . .	9,334.15
Amount of all other claims against the Company, . . . . .	8,704.18
Annual Premiums, . . . . .	\$189,000
Amount of Risks, . . . . .	12,560,750
Estimated amount required to reinsure existing Policies, . . . . .	112,797.00
Estimated Liabilities, exclusive of Capital, . . . . .	<u>\$148,371.56</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$322,816.34
Amount of Losses paid in 1870, . . . . .	\$172,991.00
Amount of Salaries paid in 1870, . . . . .	20,790.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	32,560.76
Amount of State and other Taxes paid in 1870, . . . . .	8,101.47
Amount of Rents and Office Expenses paid in 1870, . . . . .	30,830.44
Amount of Dividends paid in 1870, . . . . .	36,000.00
Receipts over payments, . . . . .	<u>\$15,552.67</u>

B. ROTHSCHILD, *Secretary.*

A. G. STILES, *President.*

GEO. S. LESTER, New Haven, *Attorney.*

*Statement of the Condition of the PACIFIC INSURANCE COMPANY, of San Francisco, Cal., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$1,000,000
Amount of Capital Stock paid in, . . . . .	\$1,000,000.00
Accumulations and Balances treated as Assets, . . . . .	777,266.63
Whole amount of Actual Capital and Surplus, . . . . .	<u>\$1,777,266.63</u>

**Assets.**

Amount of Cash on hand and in Banks, in New York, Liverpool and China, . . . . .	\$179,050.67
Real Estate owned by the Company, . . . . .	147,000.00
Amount of First Mortgages on Real Estate, . . . . .	553,914.70
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	543,311.46
Invested in United States Securities, . . . . .	150,000.00
Invested in State, City, Town and County Securities, . . . . .	69,200.00
Invested in other Stocks, Bonds and Securities, . . . . .	10,000.00
Amount of Interest, Accrued and due, . . . . .	24,999.50
Due from Agents, and Office Premiums due, . . . . .	74,166.68
Amount of all other Assets, . . . . .	25,623.62
Total Assets, . . . . .	<u>\$1,777,266.63</u>

**Liabilities.**

Amount of Losses acknowledged, unadjusted, and Losses resisted, . . . . .	\$50,121.00
Amount of Premium Account for 1870, . . . . .	\$1,418,311.78
Amount Insured under existing Policies, . . . . .	65,196,008.00
Estimated amount required to reinsure existing Policies, . . . . .	423,315.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$473,436.00</u>

**Miscellaneous Items.**

Gross Receipts in 1870, . . . . .	\$1,305,732.15
Amount of Losses paid in 1870, . . . . .	\$707,576.68
Amount of Salaries paid in 1870, . . . . .	64,407.66
Amount of Commissions and Agency Expenses paid in '70, . . . . .	129,009.36
Amount of State and other Taxes paid in 1870, . . . . .	37,947.04
Amount of Dividends paid in 1870, . . . . .	164,000.00
Amount of all other Disbursements paid in 1870, . . . . .	131,873.28
Receipts over Payments, . . . . .	<u>\$64,917.13</u>

A. J. RALSTON, *Secretary.*

J. HUNT, *President.*

H. L. CANNON, New Haven, *Attorney.*



*Statement of the Condition of the PEOPLES FIRE INSURANCE COMPANY, of Worcester, Mass., on the 1st. day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$400,000.
Amount actually paid in, . . . . .	\$400,000.00
Amount of Assets treated as Surplus, . . . . .	487,656.28
Whole amount of actual Capital and Surplus, . . . . .	<u>\$887,656.28</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$22,793.90
Amount of Real Estate owned by the Company, . . . . .	60,000.00
Amount of First Mortgages on Real Estate, . . . . .	344,407.00
Amount of Loans Secured by Collaterals and Personal Securities, . . . . .	105,571.70
Amount invested in Bank Stock, . . . . .	65,707.00
Amount invested in Railroad Stock, . . . . .	144,955.00
Amount invested in United States Securities, . . . . .	108,820.00
Amount invested in State, City, Town and County Securities, . . . . .	19,500.00
Amount due from Agents, and Office Premiums due, . . . . .	4,249.76
Amount of all other Assets viz : Interest on Mortgages, \$9,396.46	
Personal and Collaterals, 2,245.46	11,641.92
Total Assets, . . . . .	<u>\$887,657.28</u>

**Liabilities.**

Amount of Losses unadjusted, none. Losses resisted, . . . . .	17,000.00
Amount of Premium Account for 1870, . . . . .	\$388,505.26
Amount Insured by Existing Policies, . . . . .	38,869,493.09
Estimated amount required to reinsure existing Policies, . . . . .	266,856.60
Estimated Liabilities, exclusive of Capital, . . . . .	<u>283,857.60</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$429,860.91
Amount of Losses paid in 1870, . . . . .	\$249,519.86
Amount of Salaries paid in 1870, . . . . .	15,472.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	51,292.89
Amount of State and other Taxes paid in 1870, . . . . .	22,572.92
Amount of Dividends paid in 1870, . . . . .	3,200.00
Amount of all other Disbursements paid in 1870, . . . . .	19,879.68
Receipts over payments, . . . . .	<u>\$89,123.76</u>

AUGUSTUS N. CURRIER, *Secretary.*

HENRY CHAPIN, *President.*

WM. E. BAKER, *Hartford, Attorney.*

*Statement of the Condition of the PHENIX INSURANCE COMPANY,  
of New York City, N. Y., on the 1st day of January, 1871, made to the Com-  
missioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$1,000,000.00
Amount actually paid in, . . . . .	\$1,000,000.00
Amount of Assets treated as Surplus, . . . . .	895,557.10
Whole amount of actual Capital and Surplus, . . . . .	\$1,895,557.19

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$96,702.10
Amount of Real Estate owned by the Company, . . . . .	170,000.00
Amount of First Mortgages on Real Estate, . . . . .	328,495.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	248,899.67
Amount invested in Bank Stock, . . . . .	5,750.00
Amount invested in Bonds, . . . . .	3,000.00
Amount of United States Securities, . . . . .	429,438.68
Amount of State, City, Town and County Securities, . . . . .	162,999.75
Amount of other Stocks, Bonds and Securities, . . . . .	87,000.00
Amount of Premium Notes, . . . . .	116,834.83
Amount due from Agents \$43,305.16. Office Prem's due, \$73,623.42	116,928.58
Amount of all other Assets, viz: Interest, acerued, \$19,385 89; Salv. Reinsurance claims on Losses paid, \$84,069; Rents due, \$3,965.60; Wrecking Apparatus, \$17,000, claim for Taxes illegally coll'd, \$3,288.45; Stamps, \$300; Furn., &c., \$7,500,	135,508.49
Total Assets, . . . . .	\$1,895,557.10

**Liabilities.**

Estimated amount required to be deducted from the Assets to bring their cash value, . . . . .	\$5,546.83
Amount of Losses acknowledged, . . . . .	\$1,463.93
Amount of Losses unadjusted, \$100,843. Losses resisted, \$34,971,	135,814.00
Amount of all other Claims against the Company, State and City taxes, 3,779.80	
Amount of Premium Account for 1870, . . . . .	\$1,204,074.69
Amount Insured by Existing Policies, . . . . .	71,170,903.00
Estimated amount required to reinsure existing Policies, . . . . .	376,005.88
Estimated liabilities, exclusive of Capital, . . . . .	\$522,610.44

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$1,106,326.50
Amount of Losses paid in 1870, . . . . .	\$582,540.72
Amount of Salaries paid in 1870, . . . . .	88,364.50
Amount of Commission and Agency Expenses paid in '70,	136,426.55
Amount of State and other Taxes paid in 1870, . . . . .	43,255.26
Amount of Rents and Office Expenses paid in 1870, . . . . .	51,774.15
Amount of Dividends paid in 1870, . . . . .	110,000.00
Amount of all other Disbursements paid in 1870, . . . . .	16,400.00
Receipts over Payments, . . . . .	\$77,565.32

PHILANDER SHAW, *Secretary.*

STEPHEN CROWELL, *President.*

E. B. GOODSSELL, Bridgeport, *Attorney.*

*Statement of the Condition of the PROVIDENCE WASHINGTON INSURANCE COMPANY, of Providence, R. I., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	215,148.51
Whole amount of actual Capital and Surplus, . . . . .	<u>415,148.51</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$9,525.84
Amount of Real Estate owned by the Company, . . . . .	200,000.00
Amount of Loans Secured by Collaterals and Personal Securities, . . . . .	1,561.50
Amount invested in Bank Stock, . . . . .	87,800.00
Amount invested in United States Securities, . . . . .	60,735.00
Amount invested in State, City, Town and County Securities, . . . . .	73,037.50
Amount due from Agents, and Office Premiums due, . . . . .	6,563.67
Amount of all other Assets, . . . . .	5,825.00
Total Assets, . . . . .	<u>415,148.51</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$7,452.20
Amount of Losses unadjusted, and Losses resisted, . . . . .	17,659.18
Amount of Cash Dividends unpaid, . . . . .	8,828.00
Amount of all other claims against the Company, . . . . .	500.00
Amount of Premium Account for 1870, . . . . .	\$138,830.89
Amount Insured by existing Policies, . . . . .	11,918,242.00
Estimated amount required to reinsure existing Policies, . . . . .	\$65,062.92
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$99,502.30</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$169,032.06
Amount of Losses paid in 1870, . . . . .	\$107,562.74
Amount of Salaries paid in 1870, . . . . .	7,463.67
Amount of Commission and Agency expenses paid in 1870, . . . . .	17,665.76
Amount of State and other Taxes paid in 1870, . . . . .	10,124.98
Amount of Rents and Office Expenses paid in 1870, . . . . .	11,985.16
Amount of Dividends paid to Stockholders in 1870, . . . . .	29,209.00
Amount of all other Disbursements paid in 1870, . . . . .	6,017.13
Payments over Receipts, . . . . .	<u>\$20,996.88</u>

WARREN S. GREENE, *Secretary.*

JOHN KINGSBURY, *President.*

WM. E. BAKER, Hartford, *Attorney.*



*Statement of the Condition of the ROGER WILLIAMS INSURANCE COMPANY, of Providence, R. I., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500.000	
Amount actually paid in, . . . . .		\$200,000.00
Amount of Assets treated as Surplus, . . . . .		78,966.64
Whole amount of actual Capital and Surplus, . . . . .		<u>\$278,966.64</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$35,585.27	
Amount of Loans secured by Collaterals and Personal securities, . . . . .	10,000.00	
Amount invested in Bank Stock, . . . . .	147,610.00	
Amount invested in United States Securities, . . . . .	36,150.90	
Amount of Premium Notes, . . . . .	10,067.73	
Amount due from Agents, \$9,190.28. Office Premiums due, \$4,194.95, . . . . .	13,385.23	
Amount of all other Assets, viz: Bills Receivable, \$1,068.76, Salv. \$2,810.35, . . . . .	3,879.11	
Accrued Interest on Notes and Loans, . . . . .	3,289.30	
Total Assets, . . . . .		<u>\$278,966.64</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	4,333.34	
Amount of Losses unadjusted, \$17,875.02 Losses resisted, \$1,400 . . . . .	19,275.02	
Amount of Cash Dividends unpaid, . . . . .	8.00	
Amount of all other claims against the Company, . . . . .	1,317.49	
Amount of Premium Account for 1870, . . . . .	\$140,445.80	
Amount Insured by Existing Policies, . . . . .	8,795,191.00	
Estimated amount required to reinsure existing Policies, . . . . .	74,881.68	
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$99,815.53</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$181,398.85	
Amount of Losses paid in 1870, . . . . .	\$165,251.25	
Amount of Salaries paid in 1870, . . . . .	5,200.00	
Amount of Commission and Agency Expenses paid in 1870, . . . . .	23,674.05	
Amount of State and other Taxes paid in 1870, . . . . .	5,694.31	
Amount of Rents and Office Expenses paid in 1870, . . . . .	9,679.85	209,499.46
Payments over Receipts, . . . . .		<u>\$28,090.61</u>

J. W. DAVENPORT *Secretary.*

A. A. WILLIAMS, *President.*

JOHN G. NORTH, New Haven, *Attorney.*



*Statement of the Condition of the SECURITY INSURANCE COMPANY,  
of New York City, N. Y., on the 1st day of January, 1871, made to the  
Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$1,000,000.
Amount actually paid in, . . . . .	\$1,000,000.00
Amount of Assets treated as Surplus, . . . . .	880,333.08
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Whole amount of actual Capital and Surplus, . . . . .	\$1,880,333.08

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$154,371.04
Amount of Real Estate owned by the Company, . . . . .	71,389.58
Amount of First Mortgages on Real Estate, . . . . .	379,334.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	82,000.00
Amount invested in United States Securities, . . . . .	775,480.00
Amount invested in State, City, Town and County Securities, . . . . .	125,985.50
Amount of Premium Notes for Fire and Inland premiums, . . . . .	71,154.57
Amount due from Agents, \$74,514.81; Office Prem's due, \$25,502.14	100,016.95
Amount of all other Assets, viz: Accr. Int. \$4,402.69, Bills Rec. \$3,200,	7,602.69
Inland Salv. and claims \$39,017.57, Judg. \$9,374, Cash \$281.76,	48,678.47
Cash adv. for Supplies, \$618.48, Carrington & Preston, \$2,467.66	
Office Furn., Claims against Ests., unadjusted Int., \$61,234.14,	64,320.28
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Total Assets, . . . . .	\$1,880,333.08

**Liabilities.**

Amount of Losses Acknowledged, . . . . .	\$23,039.02
Amount of Losses unadjusted, \$79,917. Losses resisted, \$13,800,	\$93,717.00
Amount of all other claims against the Company, . . . . .	2,718.28
Amount of Premium Account for 1870, . . . . .	\$1,518,640.40
Estimated amount required to reinsure Existing Policies, . . . . .	585,728.23
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Estimated liabilities, exclusive of Capital, . . . . .	\$705,193.53

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$1,753,390.65
Amount of Losses paid in 1870, . . . . .	\$1,128,310.12
Amount of Salaries paid in 1870, . . . . .	112,800.60
Amount of Commission and Agency Expenses paid in '70,	308,321.11
Amount of State and other Taxes paid in 1870, . . . . .	69,229.92
Amount of Rents and Office Expenses paid in 1870, . . . . .	29,608.33
Amount of Dividends paid in 1870, . . . . .	85,000.00
Amount of all other Disbursements paid in 1870, . . . . .	281.52
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Receipts over Payments, . . . . .	19,859.05

NATHAN HARPER, *Secretary.*

A. F. HASTINGS, *President.*

WM. WALLACE, *Hartford, Attorney.*

*Statement of the Condition of the SPRINGFIELD FIRE AND MARINE  
INSURANCE, COMPANY, of Springfield, Mass., on the 1st day of Janu-  
ary, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000.
Amount actually paid in, . . . . .	\$500,000.00
Amount of Assets treated as Surplus, . . . . .	436,400.94
Whole amount of actual Capital and Surplus, . . . . .	<u>\$936,400.94</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$22,450.66
Amount of Real Estate owned by the Company, . . . . .	75,000.00
Amount of First Mortgages on Real Estate, . . . . .	92,163.33
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	35,271.51
Amount invested in Bank Stock, . . . . .	146,487.00
Amount invested in Railroad Stock, . . . . .	243,170.00
Amount invested in Railroad Bonds, . . . . .	14,500.00
Amount invested in United States Securities, . . . . .	251,400.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	7,590.00
Amount due from Agents, . . . . .	42,000.00
Amount of all other Assets, viz.: Rents, Int. Accrued, office Fur., &c., . . . . .	6,368.44
Total Assets, . . . . .	<u>\$936,400.94</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$20,046.48
Amount of Losses unadjusted, \$11,087.34. Losses resisted, \$11,350. . . . .	22,437.34
Amount of all other claims against the Company, . . . . .	6,300.00
Amount of Premium Account for 1870, . . . . .	\$463,878.79
Amount Insured by Existing Policies, . . . . .	48,689,543.00
Estimated amount required to reinsure existing Policies, . . . . .	261,056.80
Estimated Liabilities, exclusive of Capital, . . . . .	<u>\$309,840.62</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$528,972.91
Amount of Losses paid in 1870, . . . . .	\$365,032.97
Amount of Salaries paid in 1870, . . . . .	18,576.43
Amount of Commission and Agency Expenses paid in 1870, . . . . .	69,718.74
Amount of State and other Taxes paid in 1870, . . . . .	22,578.90
Amount of Dividends paid in 1870, . . . . .	51,578.95
Amount of all other Disbursements paid in 1870, . . . . .	21,057.55
Payments over receipts, . . . . .	<u>\$19,570.63</u>

SANFORD J. HALL, *Secretary.*

C. FREEMAN, *President.*

WM. E. BAKER, *Hartford, Attorney.*

*Statement of the Condition of the STANDARD FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$200,000	
Amount actually paid in, . . . . .		200,000.00
Amount of Assets treated as Surplus, . . . . .		175,479.44
Whole amount of actual Capital and Surplus, . .		<u>\$371,479.44</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$6,282.44	
Amount of First Mortgages on Real Estate, . . . . .	52,400.00	
Amount of Loans Secured by Collaterals and Personal Securities, . . . . .	14,900.00	
Amount invested in United States Securities, . . . . .	287,100.00	
Amount invested in State, City, Town and County Securities, . . . . .	4,750.00	
Amount due from Agents, \$914.35; Office Premiums due, \$4,758.97	5,673.32	
Amount of all other Assets, viz.: Interest Accrued, . . . . .	373.68	
Total Assets, . . . . .	<u>\$371,479.44</u>	

**Liabilities.**

Amount of Losses unadjusted, . . . . .	\$16,419.45	
Amount of all other claims against the Company, . . . . .	883.25	
Amount of Premium Account for 1870, . . . . .	\$94,806.60	
Amount insured by existing Policies, . . . . .	12,672,532.01	
Estimated amount required to reinsure existing Policies, . . . . .	<u>\$48,936.96</u>	
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$66,239.66</u>	

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$129,773.73	
Amount of Losses paid in 1870, . . . . .	\$43,411.94	
Amount of Salaries paid in 1870, . . . . .	17,325.00	
Amount of Commission and Agency Expenses paid in 1870, . . . . .	8,452.49	
Amount of State and other Taxes, paid in 1870, . . . . .	5,597.09	
Amount of Rents and Office Expenses paid in 1870, . . . . .	23,304.91	
Amount of Dividends paid in 1870, . . . . .	46,750.00	144,841.43
Payments over Receipts, . . . . .		<u>\$15,067.70</u>

W. M. ST. JOHN, *Secretary.*

WM. CHAPIN, *President.*

JUDAH FRISBIE, *New Haven, Attorney.*

*Statement of the Condition of the REPUBLIC FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$300,000.00
Amount actually paid in, . . . . .	\$300,000.00
Amount of Assets treated as Surplus, . . . . .	383,478.43
Whole amount of actual Capital and Surplus, . . . . .	<u>\$683,478.43</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$28,098.69
Amount of Real Estate owned by the Company, . . . . .	68,750.00
Amount of First Mortgages on Real Estate, . . . . .	110,700.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	27,500.00
Amount invested in Bank Stock, . . . . .	36,778.00
Amount invested in United States Securities, . . . . .	271,230.00
Amount invested in State, City, Town and County Securities, . . . . .	82,000.00
Amount due from Agents, \$34,319; office premiums due, \$708.86, . . . . .	35,027.86
Amount of all other Assets, viz.: Interest Accrued, \$4,602.97; Rents accrued, \$2,300. . . . .	6,902.97
Bills Receivable, Salvage, Office Furniture, &c., . . . . .	16,490.91
Total Assets, . . . . .	<u>\$683,478.43</u>

**Liabilities.**

Amount of Losses unadjusted, \$52,062.80; Losses resisted, \$19,400 . . . . .	71,462.80
Amount of outstanding Scrip for Profits, . . . . .	91,750.00
Amount of all other claims against the Company, Interest on Scrip remaining unpaid, . . . . .	7,459.98
Amount of Premium Account for 1871, . . . . .	\$336,195.58
Amount Insured by Existing Policies, . . . . .	29,037,523.00
Estimated amount required to reinsure existing Policies, . . . . .	168,097.79
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$338,770.57</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$387,908.16
Amount of Losses paid in 1870, . . . . .	\$199,698.88
Amount of Salaries paid in 1870, . . . . .	40,000.00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	56,148.03
Amount of State and other Taxes paid in 1870, . . . . .	17,069.25
Amount of Rents and Office Expenses paid in 1870, . . . . .	32,396.09
Amount of Dividends paid in 1870, . . . . .	30,000.00
Amount of all other Disbursements paid in 1870, . . . . .	5,637.60
Receipts over payments, . . . . .	<u>\$6,958.31</u>

DUNCAN P. CURRY, *Secretary.*

ROBERT S. HONE, *President.*

JAMES F. BABCOCK, New Haven, *Attorney.*



*Statement of the Condition of the TEUTONIA FIRE INSURANCE COMPANY, of Cleveland, Ohio, on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$200,000.
Amount actually paid in, . . . . .	\$200,000.00
Accumulations and Balances treated as Assets, . . . . .	37,016.04
Whole amount of Capital and Surplus, . . . . .	<u>\$237,016.04</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$8,089.98
Amount of Real Estate owned by the Company, . . . . .	158,006.64
Amount of First Mortgages on Real Estate, . . . . .	6,600.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	4,000.00
Amount invested in United States Securities, . . . . .	29,700.00
Amount invested in State, City, Town and County Securities, . . . . .	4,500.00
Amount due from Agents, \$4,882.42. Office Premiums due, \$11,547, . . . . .	16,429.42
Amount of all other Assets, viz: Office Furniture, Safe, Stamps, Stationery, and Interest accrued, but not due, . . . . .	9,700.00
Total Assets, . . . . .	<u>\$237,016.04</u>

### Liabilities.

Amount of Losses acknowledged, . . . . .	2,000.00
Amount of Losses unadjusted, . . . . .	4,500.00
Estimated amount required to reinsure existing Policies, . . . . .	40,500.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$47,000.00</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$123,584.80
Amount of Losses paid in 1870, . . . . .	\$54,221.42
Amount of Salaries paid in 1870, . . . . .	7,800.00
Amount of Commission and Agency Expenses paid in '70, . . . . .	18,895.70
Amount of State and other Taxes paid in 1870, . . . . .	5,000.51
Amount of Rents and Office Expenses paid in 1870, . . . . .	1,836.29
Amount of all other Disbursements paid in 1870, . . . . .	7,386.65
Receipts over payments, . . . . .	<u>\$29,443.73</u>

E. HISSENMUELY, *Secretary.*

H. W. SULTKEMEYER, *President.*

GEO. S. LESTER, New Haven, *Attorney.*

*Statement of the Condition of the UNION INSURANCE COMPANY, of Bangor, Maine, on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$500,000.
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	221,204.56
Whole amount of actual Capital and Surplus, . . . . .	<u>\$421,204.56</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$26,625.49
Amount of First Mortgages on Real Estate, and accrued Interest, . . . . .	194,432.00
Amount of Loans on Collaterals and Personal Securities, . . . . .	27,328.00
Amount invested in United States Securities, \$10,000; with acc. Int., . . . . .	11,300.00
Amount invested in State, City, Town and County Securities, with Int., . . . . .	19,365.00
Amount of Premium Notes, for Marine Premiums, . . . . .	93,691.58
Amount due from Agents, and Salvage, . . . . .	44,330.05
Amount of all other Assets, viz.: office Furn. and other Per. property, . . . . .	4,132.44
Total Assets, . . . . .	<u>\$421,204.56</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$20,258.00
Amount of Losses unadjusted, \$20,000; Losses resisted, \$3,500. . . . .	23,500.00
Amount of all other claims against the Company, . . . . .	5,242.55
Amount of Premium Account for 1870, . . . . .	\$173,366.30
Amount insured by existing Policies, . . . . .	\$7,071,026.00
Estimated amount required to reinsure existing Policies, . . . . .	116,299.28
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$165,299.83</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$188,700.39
Amount of Losses paid in 1870, . . . . .	\$106,520.10
Amount of Salaries paid in 1870, . . . . .	6,285.04
Amount of Commission and Agency Expenses paid in '70, . . . . .	8,241.28
Amount of State and other Taxes paid in 1870, . . . . .	1,680.90
Amount of Rents and Office Expenses paid in 1870, . . . . .	2,924.21
Amount of Dividends paid in 1870, . . . . .	20,526.31
Amount of all other Disbursements paid in 1870, . . . . .	15,963.82
Receipts over Payments, . . . . .	<u>\$26,558.73</u>

N. C. AYER, *Secretary.*

R. B. FULLER, *Vice President.*

L. W. SPERRY, New Haven, *Attorney.*

*Statement of the Condition of the UNION INSURANCE COMPANY, of San Francisco, Cal., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Authorized Capital, . . . . .	\$750,000
Amount actually paid in, . . . . .	\$750,000.00
Amount of Assets treated as Surplus, . . . . .	365,573.67
Whole amount of actual Capital and Surplus, . . . . .	<u>\$1,115,573.67</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$49,234.66
Amount of Real Estate owned by the Company, . . . . .	90,500.00
Amount of First Mortgages on Real Estate, . . . . .	738,200.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	42,120.00
Amount invested in United States Securities, . . . . .	50,000.00
Amount invested in State, City, Town and County Securities, . . . . .	15,073.85
Amount of Interest accrued, . . . . .	26,971.57
Amount of Premium Notes, Marine, . . . . .	49,851.47
Amount due from Agents, \$3,031.52. Office Prem's due, \$41,208.31 . . . . .	44,239.53
Amount of all other Assets, viz: Taxes paid on Real Estate Mortgages, Salvage, Stamps, &c., . . . . .	9,382.59
Total Assets, . . . . .	<u>\$1,115,573.67</u>

### Liabilities.

Amount of Losses acknowledged, . . . . .	\$22,613.59
Amount of Losses unadjusted, \$37,122.88. Losses resisted, \$9,854.84, . . . . .	46,977.72
Amount of Cash Dividends unpaid, . . . . .	1,821.00
Amount of all other claims against the Company, . . . . .	10,849.91
Amount of Premium Account for 1870, . . . . .	\$150,638.20
Amount insured by existing Policies, . . . . .	19,936,749.00
Estimated amount required to reinsure existing Policies, . . . . .	143,928.70
Estimated Liabilities, exclusive of Capital, . . . . .	<u>\$226,190.92</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$502,110.64
Amount of Losses paid in 1870, . . . . .	\$268,297.31
Amount of Salaries paid in 1870, . . . . .	42,754.20
Amount of Commission and Agency Expenses paid in 1870, . . . . .	39,493.03
Amount of State and other Taxes paid in 1870, . . . . .	6,038.59
Amount of Dividends paid in 1870, . . . . .	110,927.00
Amount of all other Disbursements paid in 1870, . . . . .	39,650.75
Receipts over Payments, . . . . .	<u>\$6,050.24</u>

CHAS. D. HAVEN, *Secretary.* . . . . GUSTAVE TONCHARD, *President.*

C. B. BOWERS, New Haven, *Attorney.*

*Statement of the Condition of the WASHINGTON INSURANCE COMPANY,  
of New York City, N. Y., on the 1st day of January, 1871, made to the Commis-  
sioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital, . . . . .	\$1,000,000.00
Amount actually paid in, . . . . .	\$400,000.00
Amount of Assets treated as Surplus, . . . . .	374,411.38
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Whole amount of actual Capital and Surplus, . . . . .	\$774,411.38
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**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$64,245.35
Amount of First Mortgages on Real Estate, . . . . .	98,095 50
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	78,925.00
Amount invested in United States Securities, . . . . .	424,200.00
Amount invested in State, City, Town and County Securities, . . . . .	32,000.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	31,275.00
Amount due from Agents, and Office Premiums due, . . . . .	10,276.61
Amount of all other Assets, viz.: Int. Judgments, Salvage, Bills Re- ceivable, &c., . . . . .	35,373.92
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Total Assets, . . . . .	\$774,411.38
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**Liabilities.**

Amount of Losses unadjusted, \$25,283. Losses resisted, \$1,250. . . . .	27,533 00
Amount of outstanding Scrip for Profits, . . . . .	6,504.00
Amount of all other claims against the Company, . . . . .	9,343.71
Amount of Premium Account for 1870, . . . . .	\$273,502.21
Amount Insured by Existing Policies, . . . . .	23,466,678.00
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Estimated liabilities, exclusive of Capital, . . . . .	\$132,370.14
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**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$307,007.10
Amount of Losses paid in 1870, . . . . .	\$81,909.04
Amount of Salaries paid in 1870, . . . . .	33,000 00
Amount of Commission and Agency Expenses paid in 1870, . . . . .	36,902.31
Amount of State and other Taxes paid in 1870, . . . . .	13,212.72
Amount of Rents and Office Expenses paid in 1870, . . . . .	30,143.69
Amount of Dividends paid in 1870, . . . . .	52,000.00
Amount of all other Disbursements paid in 1870, . . . . .	37,177.57
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Receipts over payments, . . . . .	\$22,661.77

WM. R. LOTHROP, *Secretary.*

HENRY WESTON, *President.*

C. W. PRESTON, *Hartford, Attorney.*



*Statement of the Condition of the WESTCHESTER FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut*

**Capital.**

Authorized Capital, . . . . .	\$200,000
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	285,314.50
Whole amount of actual Capital and Surplus, . . . . .	<u>\$485,314.50</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$23,751.28
Amount of Real Estate owned by the Company, . . . . .	27,091.43
Amount of First Mortgages on Real Estate, . . . . .	286,550.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	16,500.00
Amount invested in United States Securities, . . . . .	27,145.00
Amount invested in State, City, Town and County Securities, . . . . .	19,980.00
Amount due from Agents, and Office Premiums due, . . . . .	31,781.06
Amount of all other Assets, viz: Union Trust Co., N. Y., . . . . .	40,000.00
Interest accrued, office Furniture, Safes, &c., . . . . .	12,695.73
Total Assets, . . . . .	<u>\$485,314.50</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$7,984.62
Amount of Losses unadjusted, . . . . .	11,427.36
Amount of all other claims against the Company, . . . . .	1,800.00
Amount of Premium Account for 1870, . . . . .	\$207,757.20
Amount Insured by Existing Policies, . . . . .	33,890,735.00
Estimated amount required to reinsure existing Policies, . . . . .	125,441.37
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$146,653.35</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$231,412.40
Amount of Losses paid in 1870, . . . . .	\$147,494.90
Amount of Salaries paid in 1870, . . . . .	16,031.18
Amount of Commission and Agency Expenses paid in 1870, . . . . .	36,716.61
Amount of State and other Taxes paid in 1870, . . . . .	3,513.56
Amount of Rents and Office Expenses paid in 1870, . . . . .	3,226.00
Amount of Returned Premiums in 1870, . . . . .	15,885.73
Amount of all other Disbursements paid in 1870, . . . . .	16,400 50
	<u>239,268.47</u>

Payments over Receipts, . . . . . 7,856.07

GEO. R. CRAWFORD, *Secretary.*

GEO. J. PENFIELD, *President.*

GEO. R. COWLES, Norwalk, *Attorney.*

*Statement of the Condition of the WESTERN INSURANCE COMPANY, of Buffalo, N. Y., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital,	\$300,000.	
Amount actually paid in,		\$300,000 00
Amount of Assets treated as Surplus,		282,525.97
Whole amount of Capital and Surplus,		<u>\$582,525.97</u>

**Assets.**

Amount of Cash on hand and in Banks,	\$79,298.59
Amount of First Mortgages on Real Estate,	24,500.00
Amount of Loans secured by Collaterals and Personal Securities,	36,196.09
Amount invested in Bank Stock,	26,000.00
Amount of United States Securities,	330,000.00
Amount of State, City, Town and County Securities,	409.37
Amount of Premium Notes,	7,816.50
Amount due from Agents, \$35,015.56; office Premiums due, \$7,600.	42,116.46
Amount of all other Assets, viz: Judgment and claims secured,	19,999.44
Salvage due from Insurance Companies and others,	8,029.97
Interest and Bills Receivable,	7,679.55
Total Assets,	<u>\$582,529.97</u>

**Liabilities,**

Amount of Losses acknowledged,	1,000.00
Amount of Losses unadjusted, \$24,255.57. Losses resisted, \$6,700.	\$30,955.57
Amount of all other claims against the Company,	1,100.84
Amount of Premium account for 1870,	\$585,604.24
Amount Insured by Existing Policies,	34,793,759.00
Estimated amount required to reinsure existing Policies,	145,746.97
Estimated liabilities, exclusive of Capital,	<u>\$178,847.33</u>

**Miscellaneous Items.**

Amount of Gross Receipts, in 1870,	\$599,348.94
Amount of Losses paid in 1870,	\$390,723 90
Amount of Salaries paid in 1870,	32,514.24
Amount of Commis'n and Agency Expenses paid in 1870,	112,753.69
Amount of State and other Taxes paid in 1870,	18,907.26
Amount of Dividends paid in 1870,	63,158.88
Amount of all other disbursements paid in 1870,	3,002.09. 628,059.06
Payments over Receipts,	<u>28,710.12</u>

EDWARD P. SMITH *Secretary.*

GIBSON T. WILLIAMS, *President.*

C. C. KIMBALL, *Hartford, Attorney.*

*Statement of the Condition of the YONKERS AND NEW YORK FIRE INSURANCE COMPANY, of New York City, N. Y., on the 1st day of January, 1871, made to the Commisisoner of Insurance of Connecticut.*

### Capital.

Authorized Capital,	\$500,000.
Amount actually paid in,	\$500,000.00
Amount of Assets treated as Surplus,	368,933.03
Whole amount of actual Capital and Surplus,	<u>\$868,933.03</u>

### Assets.

Amount of Cash on hand and in Banks,	\$37,951.24
Amount of First Mortgages on Real Estate,	141,700.00
Amount of Loans secured by Collaterals and Personal Securities,	76,300.00
Amount invested in United States Securities,	441,000.00
Amount invested in State, City, Town and County Securities,	100,170.00
Amount invested in other Stocks, Bonds and Securities,	20,000.00
Amount due from Agents, \$22,100.28 ; office Premiums due, \$7,752.42,	29,852.70
Amount of all other Assets, viz: Interest accrued and due,	10,359.09
Due from other Companies for Re-insurance,	11,600.00
Total Assets,	<u>\$868,933.03</u>

### Liabilities.

Amount of Losses acknowledged,	35,000.00
Amount of Losses unadjusted, \$22,236.22    Losses resisted, \$3,000,	25,536.22
Amount of Premium Account for 1870,	\$493,525.42
Amount Insured by existing Policies,	44,860,632.00    245,281.82
Estimated liabilities, exclusive of Capital,	<u>\$280,281.82</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870,	\$558,449.76
Amount of Losses paid in 1870,	\$251,091.48
Amount of Salaries paid in 1870,	32,516.37
Amount of Commission and Agency Expenses paid in 1870,	55,338.51
Amount of State and other Taxes paid in 1870,	20,470.88
Amount of Rents and Office Expenses paid in 1870,	9,497.33
Amount of Dividends paid in 1870,	51,315.79
Amount of Returned Premiums and Re-insurance,	49,476.92
Amount of all other Disbursements paid in 1870,	67,322.34    547,029.62
Receipts over Payments,	<u>\$11,470.14</u>

JNO. W. MURRAY, *Secretary.*

RICHARD L. FRANKLIN, *President.*

FREDERICK A. HALL, *Hartford, Attorney.*



## STATEMENT OF FIRE INSURANCE COMPANIES OF OTHER STATES DOING BUSINESS IN CONNECTICUT.

NAMES OF COMPANIES.	Capital.	Gross Assets.	Gross Receipts.	Gross Payments.	Amount Insured.	Losses Paid.	Required to Reinsure.	Receipts over Payment.
Agricultural, N. Y..	100,000	550,847	300,971	255,724	\$64,763,840	156,800	216,344	45,247
Albany City, N. Y..	200,000	395,145	735,578	690,761	18,268,274	528,511	111,024	44,816
American Cent., Mo.	230,000	264,875	173,901	154,915	5,472,555	80,317	24,836	218,985
American Fire Prov.	200,000	374,969	141,515	144,351	7,693,692	93,349	46,351	short
Andes, Ohio .....	1,000,000	1,203,425	266,669	134,717	11,651,043	22,525	130,184	131,951
Atlantic F. Brooklyn	300,000	548,194	365,193	328,942	34,870,938	159,423	166,850	36,251
Atlantic & M., Prov.	200,000	249,109	165,442	108,335	6,359,659	71,502	41,784	short
Bay State, Mass....	100,000	196,885	103,072	85,403	6,210,560	49,307	52,513	17,668
Buffalo City, N. Y..	300,000	370,933	341,610	291,792	15,267,480	196,006	79,755	43,817
Buff. German, N. Y.	270,000	270,080	107,479	93,561	10,167,515	26,317	45,876	13,917
Buff. F. & M., N. Y.	300,000	473,597	243,668	257,659	15,567,566	159,336	89,946	short
Capital City, Albany.	200,000	293,766	61,781	64,210	4,316,071	26,104	20,234	short
Citizens, N. Y. ....	300,000	684,822	270,519	269,650	30,823,760	73,794	100,000	1,869
Commerce, Albany..	400,000	689,231	279,969	288,263	23,883,681	174,002	126,744	short
Continental, N. Y...	500,000	2,538,037	1,032,352	862,032	129,006,380	258,240	460,806	170,319
Excelsior, N. Y. ....	200,000	335,723	198,813	192,147	17,302,617	101,397	82,396	6,696
Firemen's, N. Y. ....	200,000	359,960	204,374	217,787	16,036,750	130,288	86,644	short
Firemen's Fund, Cal.	500,000	799,626	435,670	405,357	20,633,927	206,084	128,298	30,312
Franklin, Phil. ....	400,000	3,087,452	738,994	624,796	101,269,382	272,881	400,000	114,198
Fulton, N. Y. ....	200,000	363,001	242,288	234,266	27,557,000	126,324	109,459	7,822
First National, Mass.	100,000	157,356	149,479	130,440	6,651,822	92,373	56,896	10,038
Georgia Home, Ga..	250,000	394,959	324,141	231,693	15,672,945	118,468	91,094	92,448
Germania, N. Y. ....	500,000	1,077,848	647,087	598,859	65,000,000	287,132	298,461	48,227
Glens Falls, N. Y...	200,000	571,123	308,344	298,131	65,215,751	193,654	289,475	10,212
Girard, Phil. ....	200,000	403,062	146,399	166,004	16,680,335	101,949	82,478	short
Hanover, N. Y. ....	400,000	700,334	507,456	523,413	45,736,350	273,270	246,106	short
Hide and L., Mass..	300,000	419,211	265,943	287,786	14,361,698	196,613	104,872	short
Holyoke, Mass. ....	mutual	517,736	115,283	71,013	17,846,269	30,465	135,540	44,270
Home, Ohio. ....	500,000	638,447	274,421	157,325	20,605,896	73,921	74,824	117,096
Home, N. Y. ....	2,500,000	4,578,008	2,427,308	2,335,638	242,265,347	1,288,415	1,313,587	91,670
Hope, R. I. ....	150,000	173,840	102,874	123,248	5,437,109	83,325	34,599	short
Howard, N. Y. ....	500,000	783,850	202,001	172,757	20,272,202	49,135	69,338	29,244
Independent, Mass..	300,000	643,547	479,321	471,360	21,802,255	352,839	229,453	7,960



Ins. Co. of N. A., Pa.	550,000	3,050,535	2,148,750	1,629,542	106,046,825	1,136,941	1,046,050	519,208
International, N. Y.	500,000	1,319,151	787,974	715,677	59,005,773	419,172	342,701	22,297
Lamar, N. Y.	300,000	551,401	181,928	185,542	12,858,640	93,700	60,057	short
Lovillard, N. Y.	1,000,000	1,715,949	716,836	663,377	52,220,441	318,662	271,245	52,758
Lycorning, Pa.	notes	400,000	685,894	636,638	51,822,231	437,891	51,822	48,956
Manhattan, N. Y.	500,000	1,407,788	904,583	784,480	60,593,090	473,437	363,166	120,103
Market, N. Y.	200,000	704,684	382,783	351,481	43,475,367	184,024	174,779	31,295
Merchants, Prov.	200,000	372,199	231,170	259,938	12,792,368	194,789	100,000	short
Merchants, Ill.	500,000	878,252	626,197	606,660	25,176,345	382,038	134,348	19,532
Mer. and Far., Mass.	mutual	732,247	143,192	115,378	25,727,456	59,321	186,807	27,819
Narragansett, R. I.	500,000	793,698	530,352	509,777	22,826,046	369,422	200,316	30,575
National, Mass.	300,000	821,839	656,955	704,277	29,283,530	524,941	204,543	short
National, Maine.	200,000	241,308	21,859	11,602	2,302,440	1,714	30,184	10,256
Niagara, N. Y.	1,000,000	1,304,567	630,873	678,960	55,773,500	342,361	228,043	short
N. American, N. Y.	500,000	770,304	424,190	474,054	30,890,610	234,042	120,004	short
Occidental, Cal.	300,000	474,091	322,816	307,273	11,264,500	178,991	112,797	15,542
Pacific, Cal.	1,000,000	1,777,266	1,305,732	1,230,815	65,196,038	707,576	423,315	74,917
Peoples', Mass.	400,000	887,656	429,860	390,737	38,849,493	249,519	266,857	39,123
Phoenix, N. Y.	1,000,000	1,895,557	1,106,326	1,028,761	71,970,000	582,540	376,005	78,665
Prov. Wash., R. I.	200,000	415,148	169,032	190,028	11,918,242	107,562	65,062	short
Republic, N. Y.	300,000	683,478	387,908	380,949	29,037,528	199,698	168,979	6,959
R. Williams, Prov.	200,000	278,966	181,398	209,499	8,795,191	165,251	74,881	short
Security, N. Y.	1,000,000	1,880,333	1,753,390	1,733,537	100,378,640	1,128,310	585,728	19,839
Spring, F. & M., Mass.	500,000	936,406	528,972	548,543	48,689,543	365,032	261,056	short
Standard, N. Y.	200,000	305,239	129,773	144,841	12,612,532	43,411	48,936	short
Tutoneon, Ohio.	200,000	237,016	123,584	94,140	5,325,000	54,221	40,500	29,423
Union, Cal.	750,000	1,115,573	502,110	508,160	19,936,749	268,297	143,928	short
Union, Maine.	250,000	421,204	188,700	162,141	7,071,026	106,520	116,300	26,558
Washington, N. Y.	400,000	774,411	307,007	284,345	23,466,678	81,909	88,989	22,662
Westchester, N. Y.	200,000	485,314	231,412	239,268	33,890,935	147,494	125,441	short
Western, Buff. N. Y.	300,000	582,545	642,187	628,059	34,793,759	390,723	145,746	14,128
Yonkers, N. Y.	500,000	868,933	558,499	547,029	44,860,632	251,091	245,281	11,470

65 Companies,.... \$25,780,000 \$54,191,993 \$30,171,559 \$28,227,830 \$2,284,148,912 \$16,272,036 \$12,409,751



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STATEMENT OF THE CONDITION  
OF THE  
AMERICAN BRANCHES OF EUROPEAN  
FIRE INSURANCE COMPANIES  
DOING BUSINESS IN CONNECTICUT.

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*Statement of the Condition of the AMERICAN BRANCH OF THE IMPERIAL FIRE INSURANCE COMPANY, of London, Eng., on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Amount of Assets in United States, . . . . .	\$605,677.40
Whole amount of actual Capital and Surplus, . . . . .	<u>\$605,677.40</u>

### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$25,777.23
Amount invested in United States Securities, . . . . .	411 100.00
Amount of other Stocks, Bonds and Securities, . . . . .	70,650.00
Amount due from Agents, and Office Prem's due, . . . . .	92,150.17
Amount of all other Assets, viz: Office Furn., Maps, &c., . . . . .	<u>5,000.00</u>
Total Assets, . . . . .	\$605,677.40

### Liabilities.

Amount of Losses unadjusted, \$45,807.36. Losses resisted, \$26,840.59, 72,647.95	
Amount of all other claims against the Company, . . . . .	14,818.93
Amount of Premium Account for 1870, . . . . .	\$612,099.00
Amount Insured by existing Policies, . . . . .	53,572,699.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>301,265.44</u>
	<u>\$388,727.32</u>

### Miscellaneous Items.

Gross Receipts from all sources in 1870, . . . . .	\$622,803.31
Amount of Losses paid in 1870, . . . . .	\$184,024.22
Amount of Salaries paid in 1870, . . . . .	51,186 82
Amount of Commission and Agency Expenses paid in 1870, 73,851.00	
Amount of State and other Taxes paid in 1870, . . . . .	32,217.53
Amount of Rents and Office Expenses paid in 1870, . . . . .	7,152.19
Amount of all other Disbursements paid in 1870, . . . . .	<u>42 128.36</u>
	662,661.21
Payments over Receipts, . . . . .	<u>\$39,857.90</u>

EDGAR W. CROWELL, *Business Manager.*

C. C. KIMBALL, *Hartford, Attorney.*

*Statement of the Condition of the AMERICAN BRANCH OF THE LIVERPOOL AND LONDON AND GLOBE INSURANCE COMPANY, of Great Britain, on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Authorized Capital,	\$2,000,000.00	
Amount actually paid in,		\$1,935,760.00
Amount of Assets treated as Surplus,		1,095,600.24
Whole amount of actual Capital and Surplus,		<u>\$3,054,361.24</u>

**Assets in United States.**

Amount of Cash on hand and in Banks,	\$83,450.95
Amount of Real Estate owned by the Company,	271,565.65
Amount of First Mortgages on Real Estate,	1,083,000.00
Amount invested in United States Securities,	1,226,365.00
Amount invested in State, City, Town and County Securities,	23,430.00
Amount due from Agents. \$167,259.48 ; Office Prem's due, \$56,813.16	224,072.64
Amount of all other Assets, viz: Bills Receivable, Int. acc.,	42,466.00
Total Assets,	<u>\$3,054,361.24</u>

**Liabilities.**

Amount of Losses unadjusted, \$169,142.08 ; Losses resisted, \$39,900.	203,042.08
Amount of all other claims against the Company,	138,113.75
Amount of Premium Account for 1870,	\$2,253,115.00
Amount Insured by Existing Policies,	231,442,463.00
Estimated amount required to reinsure existing Policies,	1,217,635.28
Estimated liabilities, exclusive of Capital,	<u>\$1,558,791.11</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870,	\$2,441,390.63
Amount of Losses paid in 1870,	\$1,035,512.17
Amount of Salaries paid in 1870,	52,217.75
Amount of Commis'n and Agency Expenses paid in '70,	338,902.82
Amount of State and other Taxes paid in 1870,	70,736.81
Amount of Rents and Office Expenses paid in 1870,	94,160.43
Amount of all other Disbursements paid in 1870,	191,171.68
Receipts over payments,	<u>\$658,688.97</u>

ALFRED PELL, *Resident Secretary.*

L. W. SPERRY, New Haven, *Attorney.*

*Statement of the Condition of the NORTH BRITISH AND MERCANTILE INSURANCE COMPANY, (U. S. Branch, New York, of London and Edinburgh, Great Britain, on the 1st day of January, 1871, made to the Commissioner of Insurance of Connecticut.*

### Capital.

Amount actually paid in, in England,	\$1,250,000.00
Amount of Assets in United States,	\$1,340,521.88
Whole amount of actual Capital and Surplus,	\$1,340,521.88

### Assets.

Amount of Cash on hand and in Banks,	\$103,903.98
Amount invested in United States, State, City, Town and County Securities,	1,202,362.50
Amount due from Agents. Office Premiums due, None	24,300.47
Amount of all other Assets, viz: Office Furn., Int. acc. and due,	9,955.40
Total Assets,	\$1,340,521.88

### Liabilities.

Amount of Losses acknowledged,	\$30,221.01
Amount of Losses unadjusted, \$69,449.27; Losses resisted, \$35,750.	105,199.27
Amount of Premium Account for 1870,	\$802,264.00
Amount Insured by existing Policies,	53,042,389.00
Estimated liabilities, exclusive of Capital,	\$635,033.68

### Miscellaneous Items.

Gross Receipts from all sources in 1870,	\$1,135,922.17
Amount of Losses paid in 1870,	\$819,729.63
Amount of Salaries paid in 1870,	247,627.03
Amount of State and other Taxes paid in 1870,	42,837.45
Amount of Rents and Office Expenses paid in 1870,	37,751.92
Payments over Receipts,	\$12,023.86

CHAS. E. WHITE, *Assist. Manager.*

JUDAH FRISBIE, *New Haven, Attorney.*

*Statement of the Condition of the QUEEN INSURANCE COMPANY,  
(U. S. Branch, New York,) of Liverpool, England, on the 1st day of January,  
1871, made to the Commissioner of Insurance of Connecticut.*

**Capital.**

Amount actually paid in, in England, . . . . .	\$958,000.00	
Amount of Assets in United States, . . . . .		\$293,214.41
Whole amount of actual Capital and Surplus,		<u>\$293,214.41</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$37,580.51	
Amount invested in United States Securities, . . . . .	243,650.00	
Amount invested in State, City, Town and County Securities, . . . . .	6,502.50	
Amount due from Agents, \$232.39. Office Prem's due, \$3,114.72	3,347.11	
Amount of all other Assets, viz: Office Furniture, &c., . . . . .	2,134.99	
Total Assets, . . . . .		<u>\$293,214.41</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$14,025.52	
Amount of Losses unadjusted, \$36,689.55 Losses resisted, \$7,800	44,489.55	
Amount of all other claims against the Company, . . . . .	666.66	
Amount of Premium Account for 1870, . . . . .	\$307,857.20	
Amount Insured by Existing Policies, . . . . .	30,509,922.00	
Estimated amount required to reinsure existing Policies, . . . . .	137,161.32	
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$196,343.05</u>

**Miscellaneous Items.**

Gross Receipts from all sources in 1870, . . . . .	\$278,542.53	
Amount of Losses paid in 1870, . . . . .	\$213,774.63	
Amount of Salaries paid in 1870, . . . . .	24,317.46	
Amount of Com'n and Agency Expenses paid in 1870, . . . . .	36,659.89	
Amount of State and other Taxes paid in 1870, . . . . .	13,351.93	
Amount of Rents and Office Expenses paid in 1870, . . . . .	4,000.00	
Amount of all other Disbursements paid in 1870, . . . . .	11,978.65	304,082.56
Payments over Receipts, . . . . .		<u>\$26,540.03</u>

WM. H. ROSS, *Manager.*

C. C. KIMBALL, Hartford, *Attorney.*



*Statement of the Condition of the ROYAL INSURANCE COMPANY, (U. S. Branch, New York,) of Liverpool, England, on the 1st day of January, 1871, made to the Commisssoner of Insurance of Connecticut.*

### Capital.

Amount of Assets in the United States, . . . . .	\$675,848.00
Whole amount of actual Capital and Surplus, . . . . .	<u>\$675,848.00</u>

### Assets in United States.

Amount invested in United States Securities, . . . . .	541,000.00
Amount invested in State, City, Town and County Securities, . . . . .	<u>34,842.00</u>
American Securities, . . . . .	<u>\$675,848.00</u>

### Liabilities.

Amount of Premium Account for 1870, . . . . .	\$96,263.92
Amount Insured by Existing Policies, . . . . .	21,172,595.00

### Miscellaneous Items.

Amount of Losses paid in 1870, . . . . .	\$30,671.28
Amount of State and other Taxes paid in 1870, . . . . .	<u>4,807.00</u>

W. C HIGGINSON, *General Agent.*

GEO. S. LESTER, New Haven, *Attorney.*

[The full report of this Company was not received when the Report was closed.]



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STATEMENT OF THE CONDITION  
OF  
LIFE INSURANCE COMPANIES  
FROM OTHER STATES,  
TRANSACTIONING BUSINESS IN THE STATE OF  
CONNECTICUT.

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The taxes collected, and the licenses granted for the past year, have amounted to \$12,576.45, all of which has been paid into the State Treasury, without charge to the State.

The fees for Examinations, Certificates and other services, by the Deartment, have amounted to \$1,894.00, and expenses for blanks, postages, express, binding, rent, and services Assistant, amount to \$1,275.00.

The total collections for the State, by this Department, for the six years it has existed, have amounted, in all, to a little over \$62,000.

## LIFE INSURANCE COMPANIES.

EQUITABLE LIFE INSURANCE COMPANY, of New York City

*Exhibit Condensed from their Report of January 1, 1871.*

### Capital.

Amount actually paid in, . . . . .	\$100,000.00
Amount of Assets treated as Surplus, . . . . .	13,136,024.59
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Whole amount of actual Capital and Surplus, . . . . .	\$13,236,024.59
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### Assets.

Amount of Cash on hand and in Banks, . . . . .	\$805,262.39
Amount of Real Estate owned by the Company, . . . . .	2,246,025.19
Amount of Loans on Real Estate, . . . . .	7,522,409.10
Amount of Loans on Collaterals, . . . . .	167,068.31
Amount invested in State, City, Town, County and other Securities, . . . . .	669,139.66
Amount invested in United States Securities, . . . . .	704,631.24
Amount of deferred Prem's treated as Assets, due from Agents, &c., . . . . .	1,045,079.93
Amount of Rents, Accrued Interest, other Assets, &c., . . . . .	76,408.77
	<hr/>
Total Assets, . . . . .	\$13,236,024.59
	<hr/>

### Liabilities.

Amount of Losses acknowledged, . . . . .	\$231,000.00
Amount of Losses not acted upon, . . . . .	129,325.00
Amount Insured under existing Policies, . . . . .	\$143,970,984.00
Estimated amount required to reinsure existing Policies, . . . . .	12,700,000.00
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Estimated liabilities, exclusive of Capital, . . . . .	\$13,060,325.00
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### Balance Sheet for 1870.

Gross Receipts from all sources in 1870, . . . . .	\$7,009,344.13
Amount of Losses paid in 1870, . . . . .	\$2,123,733.11
Amount of Salaries paid in 1870, . . . . .	449,231.74
Amount of Commission and Agency Expenses paid in 1870, . . . . .	596,722.23
Amount of State and other Taxes paid in 1870, . . . . .	42,611.46
Amount of Dividends paid to Stockholders and Policy- holders in 1870, . . . . .	933,471.59
Amount of all other Disbursements paid in 1870, . . . . .	2,453.85
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Receipts over Payments, . . . . .	\$2,861,120.15

SAML. BORROWE, *Secretary.*

WM. ALEXANDER, *President.*

CHAS. W COOK, Hartford, *Attorney.*

**LIFE INSURANCE COMPANIES.**

AMICABLE MUTUAL LIFE INSURANCE COMPANY of New York.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$130 000
Amount actually paid in, . . . . .	\$130,000.00
Amount of Assets treated as Surplus, . . . . .	98,146.98
Whole amount of actual Capital and Surplus,	<u>\$228,146.98</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$4,569.83
Amount invested in United States Securities, . . . . .	110,500.00
Amount of deferred Premiums claimed to complete the fiscal year, becoming due, . . . . .	22,913.56
Amount due from Agents, and Office Premiums due, . . . . .	50,690.07
Amount of all other Assets, viz: Premiums secured by Policies, Bills Receivable, Accrued Int., office Furniture, &c., . . . . .	35,155.16 4,318.36
Total Assets, . . . . .	<u>\$228,146.98</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$4,116.67
Amount of gross dividends, payable, outstanding, . . . . .	7,230.14
Amount Insured by Existing Policies, . . . . .	\$2,052,358.00
Estimated amount required to reinsure existing Policies, . . . . .	82,478.04
Amount of all other liabilities not heretofore stated, borrowed money, \$10,000, etc., \$4,537.32 . . . . .	14,537.32
Estimated amount required to reinsure existing Policies, and addi- tions thereto, . . . . .	55,234.19
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$77,118.32</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$73,613.11
Amount of Losses paid in 1870, . . . . .	\$6,000.00
Amount paid for Policies purchased, 1870, . . . . .	147.85
Amount of Salaries paid in 1870, . . . . .	12,329.62
Amount of Commission and Agency Expenses paid in 1870, . . . . .	23,872.83
Amount of Medical Examiner's Fees paid in 1870, . . . . .	5,953.42
Amount of State and other Taxes paid in 1870, . . . . .	2,162.72
Amount of Stationery and Advertising paid in 1870, . . . . .	20,426.42
Amount of Rents and Office Expenses paid in 1870, etc., . . . . .	9,146.11
Payments over Receipts, . . . . .	<u>\$6,425.86</u>

JAS. F. R. HADDEN, *Secretary.*E. DWIGHT KENDALL, *President.*E. B. HUNTINGTON, Hartford, *Attorney.*

**LIFE INSURANCE COMPANIES.**

AMERICAN POPULAR LIFE INSURANCE COMPANY, of New York City

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$100,000.	
Amount actually paid in, . . . . .		\$100,000.00
Amount of Assets treated as Surplus, . . . . .		262,131.71
Whole amount of actual Capital and Surplus, . . . . .		<u>\$362,131.71</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$22,123.25	
Amount invested in United States Securities, . . . . .	138,772.50	
Amount invested in State, City, Town and County Securities, . . . . .	30,385.00	
Amount of Premium Notes, claimed as Assets, . . . . .	6,835.8	
Amount of deferred Premiums claimed to complete the fiscal year, becoming due, . . . . .	32,464.37	
Amount due from Agents, and Office Premiums due, . . . . .	82,524.66	
Amount of all other Assets, viz.: Sundry balances and temp. Loans, . . . . .	17,129.84	
Interest due and accrued, . . . . .	2,409.96	
Furn., Ledger bal., Leases, Stationery on hand, etc., . . . . .	30,888.09	
Total Assets, . . . . .		<u>\$362,131.71</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$5,055.47	
Amount insured by Existing Policies, . . . . .	\$6,405,718.00	
Estimated amount required to reinsure existing Policies, and additions thereto, . . . . .	291,275.82	
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$296,331.29</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$194,514.64	
Amount of Losses paid in 1870, . . . . .	\$38,508.00	
Amount paid for Policies purchased, 1870, . . . . .	1,829.55	
Amount of Salaries paid in 1870, . . . . .	16,339.64	
Amount of Commission and Agency Expenses paid in 1870, . . . . .	22,174.74	
Amount of Medical Examiner's Fees paid in 1870, . . . . .	1,581.50	
Amount of State and other Taxes paid in 1870, . . . . .	368.42	
Amount of Stationery and Advertising paid in 1870, . . . . .	17,706.02	
Amount of Rents and Office Expenses paid in 1870, . . . . .	8,358.34	
Amount of Dividends paid to Stockholders and Policyholders in 1870, . . . . .	54,211.61	
Amount of all other Disbursements paid in 1870, . . . . .	864.84	161,940.66
Receipts over Payments, . . . . .		<u>\$32,573.98</u>

FRED. SHOMARD, *Secretary.*T. S. LAMBERT, *President.*C. B. BOWERS, New Haven, *Attorney.*



**LIFE INSURANCE COMPANIES.**

ATLANTIC MUTUAL INSURANCE COMPANY, of Albany, N. Y.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$110,000.	
Amount actually paid in, . . . . .		\$110,000.00
Amount of Assets treated as Surplus, . . . . .		676,310.84
Whole amount of actual Capital and Surplus, . . . . .		<u>\$786,310.84</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$41,930.50	
Amount of First Mortgages on Real Estate, . . . . .	5,300.00	
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	35,000.00	
Amount invested in United States Securities, . . . . .	366,181.25	
Amount of Premium Notes, claimed as Assets, . . . . .	151,940.00	
Amount of deferred Premiums claimed to complete the fiscal year, due, . . . . .	37,100.82	
Amount due from Agents, \$110,604.31; Office Prem's due, \$29,676.57, 140,280.88		
Amount of all other Assets, viz.: Interest Accrued, . . . . .	8,577.39	
Total Assets, . . . . .		<u>\$786,310.84</u>

**Liabilities.**

Amount of Losses unadjusted, \$8,000.00. Losses resisted, \$15,000.	23,000.00	
Amount Reserved on account of Capital Stock, . . . . .	5,000.00	
Amount Insured by Existing Policies, . . . . .	\$10,086,303.00	
Estimated amount required to reinsure existing Policies, and additions thereto, . . . . .	619,449.00	
Estimated amount required to represent the present value of all Dividends and Scrip for profits, . . . . .	4,100.00	
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$740,852.00</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$361,051.15	
Amount of Losses paid in 1870, . . . . .	\$61,387.00	
Amount paid for Policies purchased, 1870, . . . . .	43,433.85	
Amount of Salaries paid in 1870, . . . . .	8,086.48	
Amount of Commission and Agency Expenses paid in 1870, . . . . .	62,170.49	
Amount of Medical Examiner's Fees paid in 1870, . . . . .	7,402.00	
Amount of State and other Taxes paid in 1870, . . . . .	3,753.65	
Amount of Stationery and Advertising paid in 1870, . . . . .	25,995.19	
Amount of Dividends paid to Stockholders and Policyholders in 1870, . . . . .	8,049.83	220,278.49

Receipts over payments, . . . . . \$140,772.66

LOUIS B. SMITH, *Secretary.*JAS. HENDRICK, *President.*W. C. WILLIAMS, *Cheshire, Attorney.*

**LIFE INSURANCE COMPANIES.**

BERKSHIRE LIFE INSURANCE COMPANY, of Pittsfield, Mass.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Actual Capital paid in, . . . . .	\$28,000.00
Assets treated as Capital, . . . . .	\$1,524,588.45
Whole amount of actual Capital and Surplus, . . . . .	\$1,562,588.45

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$42,445.86
Amount of Real Estate owned by the Company, . . . . .	180,000.00
Amount of First Mortgages on Real Estate, . . . . .	435,402.98
Amount of Loans secured by Collaterals, . . . . .	6,700.00
Amount of Loans on Personal Security, . . . . .	43,683.09
Amount invested in United States Securities, . . . . .	344,505.00
Amount invested in State, City, Town and County Securities, . . . . .	176,000.00
Amount of Premium Notes, claimed as Assets, . . . . .	176,531.12
Amount of deferred Premiums claimed to complete the fiscal year, becoming due, . . . . .	46,025.37
Amount due from Agents, \$39,097.78; Office Premiums due, . . . . .	39,097.78
Amount of all other Assets, viz., Accrued Interest, . . . . .	16,484.98
Ledger bal.. \$52,212.27; Office Furn., \$3,000.00 . . . . .	55,212.27
All other Assets, . . . . .	500.00
Total Assets, . . . . .	\$1,562,588.45

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$11,036.00
Amount of Losses unadjusted, \$2,200. Losses resisted, none, . . . . .	2,200.00
Amount of Cash Dividends due and unpaid, . . . . .	3,536.40
Amount Insured by Existing Policies, . . . . .	\$10,027,753.00
Estimated amount required to reinsure Existing Policies, . . . . .	1,225,254.00
Estimated Liabilities, exclusive of Capital, . . . . .	\$1,242,026.40

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$543,997.27
Amount of Losses paid in 1870, . . . . .	\$87,003.00
Amount paid for Policies purchased, 1870, . . . . .	14,502.54
Amount of Salaries paid in 1870, . . . . .	12,688.11
Amount of Commissions and Agency expenses in 1870, . . . . .	43,498.36
Amount of Medical Examiner's Fees paid in 1870, . . . . .	3,483.10
Amount of State and other Taxes, paid in 1870, . . . . .	6,176.95
Amount of Stationery and Advertising paid in 1870, . . . . .	28,980.47
Amount of Dividends paid to Stockholders and Policy-holders in 1870, . . . . .	61,308.43 257,641.21
Receipts over payments, . . . . .	\$286,356.06

LORENZO H. GAMWELL, *Secretary.*JAMES FRANCIS, *Vice President.*JOHN F. PEARL, Fair Haven, *Attorney.*

**LIFE INSURANCE COMPANIES.**

BROOKLYN FIRE INSURANCE COMPANY, of New York City, N.Y.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$125,000	
Amount actually paid in, . . . . .		\$125,000.00
Amount of Assets treated as Surplus, . . . . .		1,552,516.61
Whole amount of actual Capital and Surplus,		<u>\$1,677,516.61</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$78,582.57	
Amount of First Mortgages on Real Estate, . . . . .	588,750.00	
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	22,000.00	
Amount invested in United States Securities, . . . . .	176,312.50	
Amount invested in State, City, Town and County Securities, . . . . .	20,000.00	
Amount of Premium Notes, claimed as Assets, . . . . .	533,548.22	
Amount of deferred Premiums to complete the year, . . . . .	64,004.40	
Amount due from Agents, and Office Prem's due, . . . . .	113,640.34	
Amount of all other Assets, viz: Interest Accrued, . . . . .	25,176.70	
Ledger bal.. \$22,444.41; Commuted Com., \$20,000.00	42,444.41	
Accrued Int. on premium Notes, Fur., etc., . . . . .	13,057.49	
Total Assets, . . . . .		<u>\$1,677,516.61</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	10,000.00	
Losses unadjusted, none; Losses resisted, . . . . .	\$7,000.00	
Amount of Cash Dividends due and unpaid, . . . . .	1,386.66	
Amount Insured by Existing Policies, . . . . .	\$14,720,063.00	
Amount of all other liabilities not heretofore stated, . . . . .	400.00	
Estimated amount required to reinsure existing Policies, . . . . .	1,442,871.00	
Estimated liabilities, exclusive of Capital, . . . . .		<u>\$1,460,657.66</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$767,412.06	
Amount of Losses paid in 1870, . . . . .	\$104,714.88	
Amount paid for Policies purchased, 1870, . . . . .	66,172.53	
Amount of Salaries paid in 1870, . . . . .	18,451.34	
Amount of Commission and Agency Expenses paid in '70, . . . . .	111,475.27	
Amount of Medical Examiner's Fees paid in 1870, . . . . .	8,693.14	
Amount of State and other Taxes paid in 1870, . . . . .	8,858.16	
Amount of Stationery and Adv. paid in 18, Furn., etc., . . . . .	61,564.37	
Dividends paid Stock and Policy Holders in 1870, . . . . .	32,373.66	510,219.70
Receipts over Payments, . . . . .		<u>\$257,192.36</u>

W. M. COLE, *Secretary.*C. W. BOUCK, *President.*E. W. FRENCH, *Mystic, Attorney.*

**LIFE INSURANCE COMPANIES.**

CONTINENTAL LIFE INSURANCE COMPANY, of New York City, N. Y.

*Exhibit Condensed from their Report of January, 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$100,000.
Amount of Capital Stock paid in, . . . . .	\$100,000 00
Amount of Assets treated as Surplus, . . . . .	4,405,238.29
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Whole amount of Assets, . . . . .	\$4,505,238.29

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$162,133.44
Amount of Real Estate owned by the Company, . . . . .	395,000.00
Amount of First Mortgages on Real Estate, . . . . .	456,500.00
Amount of Loans secured by Collaterals Securities, . . . . .	138,105.00
Amount invested in United States Securities, . . . . .	166,000 00
Amount of Premium Notes, claimed as Assets. . . . .	1,496,262.58
Amount of deferred Premiums to complete the year, . . . . .	988,465 20
Amount due from Agents, \$228,618.02; New Prem's, \$385,410 40.	614,028.42
Amount of all other Assets, viz: Office Furn., accrued Int.,	78,723.86
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Total Assets, . . . . .	\$4,505,238.29

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$20,500.00
Amount of Losses unadjusted, \$53,500. Losses resisted, \$14,000.	67,500.00
Amount of gross dividends, payable, outstanding, . . . . .	200,882.00
Amount Insured under existing Policies, . . . . .	\$53,717,629 55
Amount of all other liabilities not heretofore stated, . . . . .	862,057.00
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Estimated Liabilities, exclusive of Capital.	\$4,149,939.00

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$1,363,658.84
Amount of Losses paid in 1870. . . . .	\$284,777.75
Amount paid to Annuitants in 1870, . . . . .	2,828.50
Amount paid for Policies purchased in 1870, . . . . .	68,081.98
Amount of Salaries paid in 1870, . . . . .	59,276.05
Amount of Commission and Agency Expenses paid in '70, . . . . .	255,601.57
Amount of Medical Examiner's Fees paid in 1870, . . . . .	43,962.41
Amount of State and other Taxes paid in 1870, . . . . .	13,106.83
Amount of Stationery and Advertising paid in 1870, . . . . .	122,669.79
Amount of Rents and office expenses paid in 1870, . . . . .	2,202.24
Amount of Dividends paid in 1870, . . . . .	66,088.38
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Payments over Receipts, . . . . .	\$445,063 34

J. P. ROGERS, *Secretary.*JUSTUS LAWRENCE, *President.*G. W. TILDESLEY, *Hartford, Attorney.*



**LIFE INSURANCE COMPANIES.**

CRAFTSMAN LIFE INSURANCE COMPANY, of N. Y. City, N. Y.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$200,000.
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	154,184.74
Whole amount of actual Capital and Surplus, . . . . .	<u>\$354,184.74</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$21,083.84
Amount invested in United States Securities, . . . . .	220,511.25
Amount of deferred Premiums to complete the year, . . . . .	42,972.40
Amount due from Agents, and Office Premiums due, . . . . .	55,196.23
Amount of all other Assets, viz: Office Furniture, &c., . . . . .	14,421.02
Total Assets, . . . . .	<u>\$354,184.74</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$3,000.00
Amount of borrowed money, . . . . .	64,000.00
Estimated amount required to reinsure existing Policies, . . . . .	122,496.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$189,496.00</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$213,198.90
Amount of Losses paid in 1870, . . . . .	\$40,500.00
Amount paid for Policies purchased, 1870, . . . . .	353.00
Amount of Salaries paid in 1870, . . . . .	15,233.00
Amount of Commis'n and Agency Expenses paid in '70, . . . . .	30,395.00
Amount of Med. Examiner's Fees paid in 1870, . . . . .	5,086.00
Amount of State and other Taxes paid in 1870, . . . . .	4,529.00
Amount of Stationery and Advertising paid in 1870, . . . . .	36,462.00
Amount of Rents and Office Expenses paid in 1870, . . . . .	15,000.00
Amount of Dividends paid in 1870, . . . . .	25,959.00
Amount of all other Disbursements paid in 1870, . . . . .	6,500.00
Receipts over Payments, . . . . .	<u>179,980.77</u>
	<u>\$33,128.13</u>

HENRY BELDEN, *Secretary.*EDWARD A. LAMBERT, *President.*DANIEL STRATTON, New Haven, *Attorney.*

**LIFE INSURANCE COMPANIES.**

GERMANIA LIFE INSURANCE COMPANY, of New York, N. Y,

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$200,000
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	3,620,665.57
Whole amount of actual Capital and Surplus, . . . . .	<u>\$3,820,665.57</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$76,440.91
Amount of First Mortgages on Real Estate, . . . . .	2,406,500.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	7,650.00
Amount invested in United States Securities, . . . . .	555,680.00
Amount invested in State, City, Town and County Securities, . . . . .	270,500.00
Amount of deferred Premiums to complete the year, . . . . .	298,000.86
Amount due from Agents, and Office Premiums due, . . . . .	150,000.00
Amount of all other Assets, viz: Acc. Interest, and past due, . . . . .	50,661.15
Office Furniture, . . . . .	1,732.66
Total Assets, . . . . .	<u>\$3,820,665.57</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	63,127.50
Amount of Losses unadjusted, \$2,000. Losses resisted, \$5,270.74, . . . . .	7,270.50
Amount of Cash Dividends due and unpaid. . . . .	1,604.00
Amount paid to Annuitants in 1870, . . . . .	2,472.74
Amount Insured by Existing Policies, . . . . .	\$32,144,461.00
Amount of all other liabilities not heretofore stated, . . . . .	2,016.02
Estimated amount required to reinsure existing Policies, . . . . .	<u>\$3,455,000.00</u>
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$5,530,491.00</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$1,644,892.58
Amount of Losses paid in 1870, . . . . .	\$398,562.79
Amount paid to Annuitants, 1870, . . . . .	2,472.74
Amount paid for Policies purchased, 1870, . . . . .	110,243.79
Amount of Salaries paid in 1870, . . . . .	52,210.30
Amount of Commis'n and Agency Expenses paid in '70, . . . . .	140,321.19
Amount of Medical Examiner's Fees paid in 1870, . . . . .	12,735.38
Amount of State and other Taxes paid in 1870, . . . . .	15,811.97
Amount of Stationery and Advertising paid in 1870, . . . . .	37,978.59
Amount of Rents and Office Expenses paid in 1870, . . . . .	17,800.00
Amount of Dividends paid in 1870, . . . . .	14,000.00
Amount of all other Disbursements paid in 1870, . . . . .	231,969.21
Payments over receipts, . . . . .	<u>\$610,786.32</u>

CORNELIUS DOREMUS, *Secretary.* FRED. SCHWENDLER, *Vice President.*MAIER ZUNDER, *Attorney.*

**LIFE INSURANCE COMPANIES.**

EMPIRE MUTUAL LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$100,000
Amount actually paid in, . . . . .	\$100,000.00
Amount of Assets treated as Surplus, . . . . .	533,077.93
Whole amount of actual Capital and Surplus, . . . . .	<u>\$633,077.93</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$104,988.61
Amount of First Mortgages on Real Estate, . . . . .	41,500.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	500.00
Amount invested in United States Securities, . . . . .	150,850.00
Amount of Premium Notes, claimed as Assets, . . . . .	143,189.21
Amount of deferred Premiums to complete the fiscal year, . . . . .	128,510.64
Amount due from Agents, and Office Premiums due, . . . . .	44,421.81
Amount of all other Assets, viz.: Accrued Interest, . . . . .	995.00
Bal. due from other Companies, and office Furniture, . . . . .	18,122.39
Total Assets, . . . . .	<u>\$633,077.93</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$11,000.00
Amount of Losses unadjusted, \$29,000.00    Losses resisted, \$15,000	44,000.00
Amount Insured by Existing Policies, . . . . .	\$10,014,107.00
Amount of all other liabilities not before stated, . . . . .	6,719.30
Estimated amount required to reinsure existing Policies, . . . . .	465,695.23
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$527,414.53</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$531,495.16
Amount of Losses paid in 1870, . . . . .	\$18,300.00
Amount of Advances to Agents, . . . . .	30,572.00
Amount paid for Policies purchased, 1870, . . . . .	5,401.00
Amount of Salaries paid in 1870, . . . . .	17,725.00
Amount of Commis'n and Agency Expenses paid in '70, . . . . .	113,339.00
Amount of Medical Examiner's Fees paid in 1870, . . . . .	16,537.00
Amount of State and other Taxes paid in 1870, . . . . .	3,397.00
Amount of Stationery and Advertising paid in 1870, . . . . .	124,648.00
Amount of Rents and Office Expenses paid in 1870, . . . . .	5,844.00
Amount of all other Disbursements paid in 1870, . . . . .	300.00
Payments over receipts, . . . . .	<u>\$195,715.54</u>

SIDNEY W. CROFUT, *Secretary.*GEO. W. SMITH, *Vice President.*J. E. LEMUEL, *Norwich, Attorney.*

**LIFE INSURANCE COMPANIES.**

GLOBE MUTUAL LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$100,000.
Amount actually paid in, . . . . .	100,000.00
Amount of Assets treated as Surplus, . . . . .	\$2,617,906.83
Whole amount of actual Capital and Surplus, . . . . .	\$2,917,906.83

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$218,584.86
Amount of First Mortgages on Real Estate, . . . . .	1,004,169.08
Amount of Loans secured by Callaterals, . . . . .	123,200.00
Amount Invested in United States Securities, . . . . .	578,868.75
Amount invested in State, City, Town and County Securities, . . . . .	378,405.39
Amount of deferred Premiums to complete the fiscal year, . . . . .	253,970.68
Amount due from Agents, and Office Premiums due, . . . . .	104,640.54
Amount of all other Assets, viz: Int. Accrued, . . . . .	14,213.64
Loans to Policy holders, . . . . .	16,208.34
Printing and Stationery on hand, \$7,500. Office Furn. \$18,147.	25,647.52
Total Assets, . . . . .	\$2,717,906.83

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$3,344 50
Amount of Losses unadjusted, \$60,357.14; Losses resisted, \$2,000.00, . . . . .	62,357 14
Amount of Cash Dividends due and unpaid, . . . . .	21,816.31
Amount Insured under existing Policies, . . . . .	29,823,095.00
Amount of all other liabilities not before stated, . . . . .	40,006.00
Estimated amount required to reinsure existing Policies, . . . . .	2,436,898.52
Estimated Liabilities, exclusive of Capital, . . . . .	\$2,564,416.47

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$1,336,633.16
Amount of Losses paid in 1870, . . . . .	\$274,486.80
Amount paid to Annuitants, 1870, . . . . .	560.00
Amount paid for Policies purchased, 1870, . . . . .	29,907.26
Amount of Salaries paid in 1870, . . . . .	60,443.43
Amount of Commission and Agency Expenses paid in '70, . . . . .	170,500.46
Amount of Examiner's Fees paid in 1870, . . . . .	18,822.00
Amount of State and other Taxes paid in 1870, . . . . .	12,733.81
Amount of Stationery and Advertising paid in 1870, . . . . .	132,747.32
Amount of Rents and Office Expenses paid in 1870, . . . . .	28,481.16
Amount of Dividends paid in 1870, . . . . .	125,937.81
Receipts over payments, . . . . .	\$482,012.51

JAMES R. HOSMER, *Secretary.*BENJAMIN FREEMAN, *President.*

JOEL E. ROOD, Hartford, Attorney.



**LIFE INSURANCE COMPANIES.**

HAHNEMANN LIFE INSURANCE COMPANY, of Cleveland, Ohio.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$200,000.
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	285,560.02
Whole amount of actual Capital and Surplus, . . . . .	<u>\$485,560.02</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$23,352.00
Amount of First Mortgages on Real Estate, . . . . .	41,457.48
Amount of Loans secured by Collateral Securities, . . . . .	69,000.00
Amount invested in United States Securities, . . . . .	98,100.00
Amount invested in State, City, Town and County Securities, . . . . .	70,100.00
Amount of other Stocks, Bonds and Securities, . . . . .	50,950.00
Amount of Premium Notes, claimed as Assets, . . . . .	7,446.40
Amount of deferred Premiums to complete the fiscal year, . . . . .	49,341.61
Amount due from Agents, \$41,535.47; office Prem's due, \$724.63, . . . . .	42,260.10
Amount of all other Assets, viz: Loans, \$13,217.75; Fur. \$13,087.86, . . . . .	26,305.60
Acc. Int., and bal. due from other Companies, . . . . .	7,149.83
Total Assets, . . . . .	<u>\$485,560.02</u>

**Liabilities.**

Amount of Losses unadjusted, Losses resisted, None . . . . .	3,000.00
Amount Insured by Existing Policies, . . . . .	7,099,198.00
Estimated amount required to reinsure existing Policies, . . . . .	300,150.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$303,150.00</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	213,318.57
Amount of Losses paid in 1870, . . . . .	\$31,288.00
Amount paid for Policies purchased, 1870, . . . . .	15,788.10
Amount of Salaries paid in 1870, . . . . .	15,874.41
Amount of Commissions and Agency Expenses paid in 1870, . . . . .	32,104.13
Amount of Medical Examiner's Fees paid in 1870, . . . . .	7,216.00
Amount of State and other Taxes, paid in 1870, . . . . .	6,268.33
Amount of Stationery and Advertising paid in 1870, . . . . .	18,305.29
Amount of Rents and Office Expenses paid in 1870, . . . . .	2,005.08
Amount of Dividends paid in 1870, . . . . .	23,008.19
Receipts over Payments, . . . . .	<u>\$61,461.04</u>

J. F. CRANK, *Secretary.*H. M. CHAPIN, *President.*L. Cook, Hartford, *Attorney.*

**LIFE INSURANCE COMPANIES.**

HOMŒOPATHIC MUTUAL LIFE INSURANCE COMPANY, of New  
York City.

*Exhibit Condensed from their Report of January 1, 1871.*

**Capital.**

Authorized Capital, . . . . .	\$150,000.00
Amount actually paid in, . . . . .	\$150,000.00
Amount of Assets treated as Surplus, . . . . .	176,028.00
Whole amount of actual Capital and Surplus, . . . . .	<u>\$326,028.00</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$40,645.23
Amount of First Mortgages on Real Estate, . . . . .	23,000.00
Amount of Loans secured by Collaterals Securities, . . . . .	500.00
Amount invested in United States Securities, . . . . .	152,615.00
Amount of Ledger balances, . . . . .	9,490 28
Amount of deferred Premiums to complete the fiscal year, . . . . .	38,985.52
Amount due from Agents, and Office Premiums due, . . . . .	41,824 62
Amount of all other Assets, viz: acc'd, Interest, . . . . .	3,070.60
Loans on Policies, \$3,977.48; Stationery, \$3,500. . . . .	7,477.48
Furn. &c., \$3,229.67; other Companies, \$5,189.61. . . . .	3,419.28
Total Assets, . . . . .	<u>\$326,028.01</u>

**Liabilities.**

Amount of Cash Dividends due and unpaid, . . . . .	1,144.75
Amount Insured, . . . . .	\$4,570,221.00
Amount of all other liabilities not heretofore stated, . . . . .	142.53
Estimated amount required to reinsure existing Policies, . . . . .	157,000.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$158,287.28</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources, . . . . .	\$176,094.19
Amount of Losses paid in 1870, . . . . .	\$39,554.00
Amount paid for Policies purchased, 1870, . . . . .	2,223.47
Amount of Salaries paid in 1870, . . . . .	12,256.47
Amount of Commission and Agency Expenses paid in '70, . . . . .	30,421.52
Amount of Medical Examiner's Fees paid in 1870, . . . . .	4,318.25
Amount of State and other Taxes paid in 1870, . . . . .	1,564.43
Amount of Stationery and Advertising paid in 1870, . . . . .	10,666.34
Amount of Rents and Office Expenses paid in 1870. . . . .	8,436.68
Amount of Dividends paid in 1870, . . . . .	12,914.99
	<u>122,354.15</u>

Receipts over payments, . . . . . \$53,740.04

A. HALSEY PLUMMER, *Secretary.*

D. D. F. MARSHALL, *President.*

CHAS. G. WIGHTMAN, Bristol, *Attorney.*

**LIFE INSURANCE COMPANIES.**

JOHN HANCOCK LIFE INSURANCE COMPANY, of Boston, Mass.

*Exhibit Condensed from their Report of January 1, 1871.***Assets.**

Authorized Capital, . . . . .	\$100,000.
Amount actually paid in, . . . . .	\$100,000.00
Amount of Assets treated as Surplus, . . . . .	1,815,592.79
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Whole amount of actual Capital and Surplus,	\$1,915,592.79

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$45,588.29
Amount of First Mortgages on Real Estate, . . . . .	462,500.00
Amount of Loans Secured by Collaterals and Personal Securities, . . . . .	141,600.00
Amount invested in Bank Stock, Railroad Stock, Bonds, and United States Securities, . . . . .	483,968.00
Amount of Premium Notes, claimed as Assets, . . . . .	477,206.44
Amount of deferred Premiums to complete the fiscal year, . . . . .	93,177.11
Amount due from Agents, and Office Premiums due, . . . . .	162,954.89
Amount of all other Assets, viz: Balances, Office Furn., Acc'd Int., . . . . .	48,601.97
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Total Assets, . . . . .	\$1,915,592.79

**Liabilities.**

Estimated amount required to be deducted from the Assets to bring them to their cash value, . . . . .	30,700.00
Amount of Cash Dividends unpaid, . . . . .	16,362.11
Amount Insured by Existing Policies, . . . . .	17,924,993.00
Estimated amount required to reinsure existing Policies, . . . . .	\$1,295,239.00
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Estimated liabilities, exclusive of Capital, . . . . .	\$1,342,301.11

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$718,972.95
Amount of Losses paid in 1870, . . . . .	
Amount paid to Annuitants, 1870, . . . . .	
Amount paid for Policies purchased, 1870, . . . . .	17,625.40
Amount of Salaries paid in 1870, . . . . .	20,366.46
Amount of Commission and Agency Expenses paid in '70, . . . . .	114,072.70
Amount of Medical Examiner's Fees paid in 1870, . . . . .	9,231.00
Amount of State and other Taxes paid in 1870, . . . . .	3,412.00
Amount of Stationery and Advertising paid in 1870, . . . . .	12,527.07
Amount of Rents and Office Expenses paid in 1870, . . . . .	15,731.79
Amount of Dividends paid in 1870, . . . . .	61,454.20
Amount of all other Disbursements paid in 1870, . . . . .	54,415.70
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Receipts over Payments, . . . . .	\$337,972.13

GEO. B. AGER, *Secretary.*GEO. P. SANGER, *President.*T. E. PACKER, *Mystic Bridge, Attorney.*

**LIFE INSURANCE COMPANIES.**

HOPE MUTUAL LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital,	\$150,000
Amount actually paid in,	\$150,000.00
Amount of Assets treated as Surplus,	312,819.92
Whole amount of actual Capital and Surplus,	<u>\$462,819.92</u>

**Assets.**

Amount of Cash on hand and in Banks,	\$15,557.09
Amount of First Mortgages on Real Estate,	27,000.00
Amount invested in United States Securities,	47,461.25
Amount invested in State, City, Town and County Securities,	76,050.00
Amount of Premium Notes, claimed as Assets,	66,495.82
Amount of deferred Premiums to complete the fiscal year,	109,931.07
Amount due from Agents, \$93,422.99 Office Premiums due, \$5,200.00	99,122.99
Amount of all other Assets, viz: Accrued Int.	423.43
Bills Receivable, Furniture, Stationery, &c.,	20,778.27
Total Assets,	<u>\$462,819.92</u>

**Liabilities.**

Amount of Losses acknowledged,	2,000.00
Amount of Losses unadjusted, \$18,000.00 Losses resisted, None,	16,000.00
Amount Insured by Existing Policies,	9,732,747.00
Amount of all other liabilities, Bills payable and Balances,	23,651.57
Estimated amount required to reinsure existing Policies,	295,295.00
Estimated liabilities, exclusive of Capital,	<u>\$338,946.57</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870,	\$180,311.50
Amount of Losses paid in 1870,	\$7,416.64
Amount of Salaries paid in 1870,	33,152.50
Amount of Commission and Agency Expenses paid in 1870,	35,264.15
Amount of Medical Examiner's Fees paid in 1870,	15,827.62
Amount of State and other Taxes paid in 1870,	5,382.44
Amount of Stationery and Advertising paid in 1870,	26,942.03
Amount of Rents and Office Expenses paid in 1870,	26,822.10
Amount of all other Disbursements paid in 1870,	15,214.68 166,022.16
Receipts over Payments,	<u>\$14,289.34</u>

CHAS. H. DEWEY, *Secretary.*WM. EDSALL, *Vice President.*T. H. ELDRIDGE, Putnam, *Attorney.*



**LIFE INSURANCE COMPANIES.**

HOME LIFE INSURANCE COMPANY, of Brooklyn, N. Y.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$125,000
Amount actually paid in, . . . . .	\$125,000.00
Amount of Assets treated as Surplus, . . . . .	2,545,005.20
Whole amount of Actual Capital and Surplus, . . . . .	<u>\$2,670,005.20</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$154,015.74
Real Estate owned by the Company, . . . . .	160,079.62
Amount of First Mortgages on Real Estate, . . . . .	513,200.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	12,493.31
Invested in United States Securities, . . . . .	282,512.50
Invested in State, City, Town and County Securities, . . . . .	425,600.00
Amount of deferred Premiums to complete the fiscal year, . . . . .	27,289.41
Amount due from Agents, . . . . .	122,098.64
Amount of all other Assets, viz: Accrued Interest, . . . . .	6,000.00
Loans secured by Policies, Office Furniture, &c., . . . . .	966,715.55
Total Assets, . . . . .	<u>\$2,670,005.20</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$12,000.00
Amount of dividends, payable, outstanding, . . . . .	91,370.00
Amount Insured under existing Policies, . . . . .	\$22,992,409.00
Estimated amount required to reinsure existing Policies, . . . . .	2,065,690.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$2,169,060.00</u>

**Balance Sheet for 1870.**

Gross Receipts in 1870, . . . . .	\$726,921.36
Amount of Losses paid in 1870, . . . . .	\$184,792.04
Amount paid to Annuitants, 1870, . . . . .	2,047.24
Amount paid for Policies purchased, 1870, . . . . .	13,536.61
Amount of Salaries paid in 1870, . . . . .	35,979.88
Amount of Commissions and Agency Expenses paid in '70, . . . . .	82,879.76
Amount of Medical Examiner's Fees paid in 1870, . . . . .	6,985.45
Amount of State and other Taxes paid in 1870, . . . . .	5,955.15
Amount of Stationery and Advertising paid in 1870, . . . . .	39,915.98
Amount of Rents and Office Expenses paid in 1870, . . . . .	7,904.00
Amount of Dividends paid in 1870, . . . . .	15,000.00
Amount of all other Disbursements paid in 1870, . . . . .	30,835.99
Receipts over Payments, . . . . .	<u>\$301,090.25</u>

GEO. C. RIPLEY, *Secretary.*WALTER S. GRIFFITH, *President.*PHILIP POND, New Haven, *Attorney.*

**LIFE INSURANCE COMPANIES.**

KNICKERBOCKER LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$100,000.
Amount actually paid in, . . . . .	\$100,000.00
Amount of Assets treated as Surplus, . . . . .	7,298,991.60
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Whole amount of actual Capital and Surplus, . . . . .	\$7,398,991.60

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$22,508.91
Amount of Real Estate owned by the Company, . . . . .	43,247.55
Amount of First Mortgages on Real Estate, . . . . .	1,217,670.16
Amount of Loans Secured by Collaterals and Personal Securities, . . . . .	445,480.00
Amount invested in Bank Stock, . . . . .	22,200.00
Amount invested in Railroad Bonds, . . . . .	2,500.00
Amount invested in United States Securities, . . . . .	208,254.38
Amount invested in State, City, Town and County Securities, . . . . .	209,806.00
Amount invested in Furniture, Stationery, etc., . . . . .	24,230.94
Amount of Premium Notes, claimed as Assets, . . . . .	3,842,700.16
Amount of deferred Premiums to complete the fiscal year, . . . . .	43,000.00
Amount due from Agents, and Office Premiums due, . . . . .	620,211.42
Amount of all other Assets viz: Accrued Interest and Loans, . . . . .	677,282.10
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Total Assets, . . . . .	\$7,398,991.60

**Liabilities.**

Amount of Losses unadjusted, none. Losses resisted, . . . . .	150,600.00
Amount of Losses unadjusted, \$102,950. Losses resisted, \$17,000. . . . .	119,950.00
Amount of Cash Dividends due and unpaid, . . . . .	1,801.62
Amount Insured by Existing Policies, . . . . . 61,547,652.00	
Amount of all other liabilities not before stated, . . . . .	31,536.39
Estimated amount required to reinsure existing Policies, . . . . .	6,403,771.86
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Estimated Liabilities, exclusive of Capital, . . . . .	6,808,659.87

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$2,326,485.30
Amount of Losses paid in 1870, . . . . .	\$862,672.15
Amount paid to Annuitants and for policies purch'd, . . . . .	8,713.17
Amount of Salaries paid in 1870, . . . . .	71,903.57
Amount of Commis'n and Agency Expenses paid in '70, . . . . .	451,290.83
Amount of Medical Examinee's Fees paid in 1870, . . . . .	24,476.36
Amount of State and other Taxes paid in 1870, . . . . .	16,492.27
Stationery, Advertis'g, Rents and Office Ex. paid in '70, . . . . .	117,322.09
Amount of Dividends paid in 1870, . . . . . 45,857.70	598,728.14
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Receipts over payments, . . . . . \$727,757.16

GEO. F. SNIFFEN, *Secretary.*ERASTUS LYMAN, *President.*STEPHEN B. GILBERT, New Haven, *Attorney.*

**LIFE INSURANCE COMPANIES.**

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY, of Springfield, Mass.

*Exhibit Condensed from their Report of January, 1, 1871.*

**Capital.**

Amount secured to be paid, . . . . .	Mutual.
Amount of Assets treated as Surplus, . . . . .	3,419,303.79

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$335,853.36
Amount of Real Estate owned by the Company, . . . . .	97,000.00
Amount of First Mortgages on Real Estate, . . . . .	1,258,009.62
Amount on Loans secured by Collaterals, . . . . .	89,435.60
Amount invested in Bank Stock, and Railroad Bonds, . . . . .	246,830.00
Amount invested in United States Securities, . . . . .	280,450.00
Amount invested in State, City, Town and County Securities, . . . . .	79,600.00
Amount of Premium Notes, claimed as Assets, . . . . .	768,952.62
Amount of deferred Premiums to complete the year, . . . . .	197,832.68
Amount due from Agents, \$246,522.86 ; Office Prem's due, \$3,568.09	250,090.95
Amount of all other Assets, viz: Loans on per. security, acc'd Int., . . . . .	102,693.18
Office Furn. Stationery, etc., . . . . .	9,461.96
Total Assets, . . . . .	\$3,419,303.79

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$77,500.00
Amount of Losses unadjusted, \$24,500.00 ; Losses resisted, \$13,000.	\$37,500.00
Amount of gross Dividends, payable, outstanding, . . . . .	30,583.68
Amount Insured by Existing Policies, . . . . .	\$32,490,597.00
Estimated amount required to reinsure existing Policies, . . . . .	3,061,283.00
Estimated liabilities, exclusive of Capital, . . . . .	\$3,206,866.68

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$1,007,165.20
Amount of Losses paid in 1870, . . . . .	\$286,601.79
Amount paid for Policies purchased, 1870, . . . . .	66,635.95
Amount of Salaries paid in 1870, . . . . .	27,300.00
Amount of Commission and Agency Expenses paid in '70, . . . . .	152,785.63
Amount of Medical Examiner's Fees paid in 1870, . . . . .	11,700.00
Amount of State and other Taxes paid in 1870, . . . . .	8,332.81
Stationery, Advertising, Rents and Office Expenses, in '70, . . . . .	22,374.02
Amount of Dividends paid in 1870, . . . . .	51,663.67
Amount of all other Disbursements paid in 1870, . . . . .	13,174.72
Receipts over Payments, . . . . .	\$366,586.39

CHAS. McLEAN KNOX, *Secretary.*

CALEB RICE, *President.*

ALBERT H. BOND, Hartford, *Attorney.*



**LIFE INSURANCE COMPANIES.**

MANHATTAN LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January, 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$100,000.00	
Amount actually paid in, . . . . .		\$100,000.00
Amount of Assets treated as Surplus, . . . . .		6,824,116.39
Whole amount of actual Capital and Surplus, . . . . .		<u>\$6,924,116.39</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$77,364.91
Amount of First Mortgages on Real Estate, . . . . .	2,353,685.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	688,725.00
Amount invested in Bank Stock, . . . . .	11,900.00
Amount of United States Securities, . . . . .	489,950.00
Amount of State, City, Town and County Securities, . . . . .	205,000.00
Amount of Premium Notes, claimed as Assets, . . . . .	2,314,027.79
Amount of deferred Premiums to complete the fiscal year. . . . .	112,042.03
Amount due from Agents \$556,429.12. Office Prem's due, \$11,957.41, . . . . .	568,386.53
Amount of all other Assets, viz: Accrued Interest, . . . . .	79,428.83
Office Furn., Judgments, U. S. Rev. Stamps, etc., . . . . .	23,503.30
Total Assets, . . . . .	<u>\$6,924,116.39</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$140,200.00
Amount of Losses unadjusted, Losses resisted, None . . . . .	54,000.00
Amount of gross dividends, payable, outstanding, . . . . .	127,152.71
Amount paid to Annuitants in 1870, . . . . .	3,206.57
Amount Insured by Existing Policies, . . . . .	\$43,470,076.00
Amount of all other liabilities not heretofore stated, . . . . .	10,000.00
Estimated amount required to reinsure existing Policies, . . . . .	4,905,575.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$5,240,134.28</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$1,751,812.20
Amount of Losses paid in 1870, . . . . .	\$491,903.76
Amount paid to Annuitants, 1870, . . . . .	3,206.50
Amount paid for Policies purchased, 1870, . . . . .	34,412.01
Amount of Salaries paid in 1870, . . . . .	59,389.26
Amount of Commission and Agency Expenses paid in '70, . . . . .	153,743.87
Amount of Medical Examiner's Fees paid in 1870, . . . . .	10,597.00
Amount of State and other Taxes paid in 1870, . . . . .	13,324.67
Stationery, Advertising, Rents and Office Expenses in '70, . . . . .	45,681.49
Amount of Dividends paid in 1870, . . . . .	345,354.34
Receipts over Payments, . . . . .	<u>\$1,157,612.97</u>
	<u>\$594,199.23</u>

JACOB L. HALSEY, *Secretary.*HENRY STOKES, *President.*NOAH LUCAS, *Attorney.*



**LIFE INSURANCE COMPANIES.**

METROPOLITAN LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$200,000
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	633,914.19
Whole amount of actual Capital and Surplus, . . . . .	<u>\$833,914.19</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$23,340.74
Amount invested in United States Securities, . . . . .	195,455.00
Amount invested in State, City, Town and County Securities, . . . . .	4,000.00
Amount of Premium Notes, claimed as Assets, . . . . .	166,447.78
Amount of deferred Premiums to complete the fiscal year, . . . . .	166,865.33
Amount due from Agents, \$135,686.36 Office Prem's due, \$76,879.46, . . . . .	212,565.82
Amount of all other Assets, viz: Bal. due from ag'ts received, . . . . .	39,277.47
Accrued Int. and Office Furniture, . . . . .	22,118.58
Loans secured by future commissions, and Sundries, . . . . .	23,511.22
Total Assets, . . . . .	<u>\$833,914.19</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$16,500.00
Amount of Losses unadjusted, Losses resisted, None . . . . .	5,300.00
Amount of Cash Dividends unpaid, . . . . .	11,532.00
Amount Insured by Existing Policies, . . . . . \$13,303,608.00	
Amount of all other liabilities not heretofore stated, . . . . .	14,390.47
Estimated amount required to reinsure existing Policies, . . . . .	480,245.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$727,967.47</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$327,740.24
Amount of Losses paid in 1870, . . . . .	\$55,918.00
Amount paid for Policies purchased, 1870, . . . . .	2,022.98
Amount of Salaries paid in 1870, . . . . .	49,890.63
Amount of Commission and Agency Expenses paid in 1870, . . . . .	84,011.65
Amount of Medical Examiner's Fees paid in 1870, . . . . .	18,446.75
Amount of State and other Taxes paid in 1870, . . . . .	2,947.17
Amount of Rents and Office Expenses paid in 1870, . . . . .	21,189.54
Stationery, Advertising, Rents and Office Expenses in '70, . . . . .	23,299.48
Amount of Dividends paid in 1870, . . . . .	20,483.14
Amount of all other Disbursements paid in 1870, . . . . .	10,769.96
	<u>288,879.30</u>

Receipts over Payments, . . . . .	\$38,870.94
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DAN'L C. TOAL, <i>Secretary.</i>	JNO. R. HEGEMAN, <i>Vice President.</i>
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JOHN NEW, <i>New Haven, Attorney.</i>
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**LIFE INSURANCE COMPANIES.**

MUTUAL BENEFIT LIFE INSURANCE COMPANY, of Newark, N. J.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Amount secured, to be paid,	Mutual.
Amount of Assets treated as Surplus,	<u>\$22,140,058.24</u>

**Assets.**

Amount of Cash on hand and in Banks,	643,399.91
Amount of Real Estate owned by the Company,	143,189.84
Amount of First Mortgages on Real Estate,	6,496,844.50
Amount of Loans secured by Collaterals and Personal Securities,	1,460.17
Amount invested in Bank Stock, Railroad Stock, Bonds, State, City, Town and County and U. S. Securities,	7,227,037.50
Amount of Premium Notes, claimed as Assets,	6,775,972.97
Amount of deferred Premiums to complete the fiscal year,	27,338.84
Amount due from Agents, and Office Premiums due,	371,524.03
Amount of all other Assets, viz: Acc'd int. on mortgages,	169,346.20
Acc'd Int. on prem. notes and stocks not before included,	284,824.28
<b>Total Assets,</b>	<u><b>\$22,140,058.24</b></u>

**Liabilities.**

Amount of Losses acknowledged, unadjusted, and resisted,	\$594,900.00
Amount of Cash Dividends unpaid, special reserve,	58,704.81
Amount of gross dividends, payable, outstanding,	2,840,546.73
Amount of outstanding Scrip for Profits, maturing or due,	21,370.58
Amount of Risks,	\$135,000,000
Estimated amount required to reinsure existing Policies,	16,500,000.00
<b>Estimated Liabilities, exclusive of Capital,</b>	<u><b>\$20,015,522.12</b></u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870,	\$4,616,619.31
Amount of Losses paid in 1870,	\$1,329,416.75
Amount paid to Annuitants, 1870,	1,231.07
Amount for Policies purchased, 1870,	126,320.61
Amount of Salaries paid in 1870,	58,535.41
Amount of Commis'n and Agency Expenses paid in '70,	437,708.90
Amount of Medical Examiner's Fees paid in 1870,	25,204.20
Amount of State and other Taxes paid in 1870,	93,418.97
Stationery, Advertising, Rents, and Office Expenses, '70,	100,325.15
Amount of Dividends paid in 1870,	248,330.60
<b>Receipts over payments,</b>	<u><b>\$2,196,127.65</b></u>

EDWARD A. STRONG, *Secretary.*LEWIS C. GROVER, *President.*LEVI S. GILBERT, New Haven, *Attorney.*

**LIFE INSURANCE COMPANIES.**

MUTUAL LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January 1, 1871.*

<b>Capital.</b>	<b>Mutual.</b>
Amount of Assets treated as Surplus, . . . .	\$44,465,930.77
Whole amount of actual Capital and Surplus, . . . .	<u>\$44,465,930.77</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . .	\$2,608,910.74
Amount of Real Estate owned by the Company, . . . .	915,383.07
Amount of First Mortgages on Real Estate, . . . .	33,960,521.62
Amount of other Mortgages, . . . .	38,900.00
Amount invested in Bank Stock, Railroad Stock, Bonds, United States Securities, State, City, Town, Co., and other Securities, . . . .	5,201,732.75
Amount of deferred Premiums to complete the year, . . . .	1,007,616.39
Amount due from Agents, Office Prem's due, and accr'd Int., . . . .	365,864.15
Total Assets, . . . . .	<u>\$44,465,930.77</u>

**Liabilities.**

Amount of Losses acknowledged, . . . .	\$37,006.43
Amount of Losses unadjusted, and Losses resisted, . . . .	354,751.67
Amount of Cash Dividends unpaid, . . . .	129,095.35
Amount Insured by Existing Policies, . . . .	\$242,004,488.76
Estimated amount required to reinsure existing Policies, . . . .	41,108,179.80
Estimated liabilities, exclusive of Capital, . . . .	<u>41,619,033.25</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . .	\$14,647,490.02
Amount of Losses paid in 1870, . . . .	\$2,261 503.90
Amount paid to Annuitants, and Policies purch'd '70, . . . .	1,272,414.04
Amount of Salaries paid in 1870, . . . .	206,845.72
Amount of Commis'n and Agency Expenses paid in '70, . . . .	284,609.85
Amount of Medical Examiner's Fees paid in 1870, . . . .	63,394.66
Amount of State and other Taxes paid in 1870, . . . .	102,297.74
Amount of Stationery and Advertising paid in 1870, . . . .	192,026.91
Amount of Commuted Commissions, . . . .	440,456.87
Dividends paid to Policy holders in 1870, post mortem, . . . .	6,127.97
Amount of Endowment Policies paid, . . . .	35,439.39
Amount of Dividends paid in 1870, . . . .	2,548,614.69
Payments over Receipts, . . . .	<u>\$7,170,833.85</u>

JOHN M. STUART, *Secretary.*RICHARD A. McCURDY, *President.*HORACE NICHOLS, Bridgeport, *Attorney.*

**LIFE INSURANCE COMPANIES.**

NATIONAL LIFE INSURANCE COMPANY OF U. S., Washington, D. C.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$1,000,000.
Amount actually paid in, . . . . .	\$1,000,000.00
Amount of Assets treated as Surplus, . . . . .	735,551.55
Whole amount of actual Capital and Surplus, . . . . .	<u>\$1,735,551.55</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$89,707.74
Amount of First Mortgages on Real Estate, . . . . .	339,366.70
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	591,000.00
Amount Loaned on Personal Securities, . . . . .	28,000.00
Amount invested in United States Securities, . . . . .	328,500.00
Amount invested in State, City, Town and County Securities, . . . . .	140,722.60
Amount of other Stocks, Bonds and Securities, . . . . .	81,378.33
Amount of deferred Premiums to complete the year, . . . . .	81,247.00
Amount due from Agents. Office Premiums due, None, . . . . .	33,265.00
Amount of all other Assets, viz: Accrued Int. and office Furn., &c., . . . . .	22,265.18
Total Assets, . . . . .	<u>\$1,735,551.55</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$15,000.00
Estimated amount required to reinsure existing Policies, . . . . .	800,000.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$815,000.00</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$739,680.96
Amount of Losses paid in 1870, . . . . .	\$105,848.00
Amount paid for Policies purchased, 1870, . . . . .	19,578.00
Amount of Salaries paid in 1870, . . . . .	51,206.00
Amount of Commission and Agency Expenses paid in '70, . . . . .	104,361.00
Amount of Medical Examiner's Fees paid in 1870, . . . . .	14,429.00
Amount of State and other Taxes paid in 1870, . . . . .	10,541.00
Amount of Stationery and Advertising paid in 1870, . . . . .	22,043
Amount of Rents and Office Expenses paid in 1870, . . . . .	3,156.00
Amount of Sundry Disbursements, . . . . .	17,080.00
Amount of all other Disbursements paid in 1870, . . . . .	18,610.87
Receipts over payments, . . . . .	<u>\$367,825.09</u>

EMERSON W. PEET, *Secretary.*CLARENCE H. CLARK, *President.*GEO. L. CARRINGTON, Waterbury, *Attorney.*



**LIFE INSURANCE COMPANIES.**

NATIONAL LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$150,000
Amount actually paid in, . . . . .	\$150,000.00
Amount of Assets treated as Surplus, . . . . .	729,347.57
Whole amount of actual Capital and Surplus,	<u>\$879,347.57</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$41,656.56
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	1,500.00
Amount invested in United States Securities, . . . . .	32,725.00
Amount invested in State, City, Town and County Securities, . . . . .	93,140.00
Amount of Premium Notes, claimed as Assets, . . . . .	372,457.05
Amount of deferred Premiums to complete the year, . . . . .	99,111.00
Amount due from Agents, and Office Premiums due, . . . . .	199,242.93
Amount of all other Assets, viz: Accrued Interest, . . . . .	16,711.65
Reinsurance, Furniture, Bills Receivable, and Stationery, . . . . .	36,367.13
Total Assets, . . . . .	<u>\$891,811.12</u>

**Liabilities.**

Assets estimated at their cash value, . . . . .	\$12,463.55
Amount of Losses acknowledged, . . . . .	6,000.00
Amount of Losses unadjusted, . . . . .	14,000.00
Amount of Cash Dividends payable to Stock and Policy holders, . . . . .	15,110.96
Amount of outstanding Scrip for profits mat. or due, Salaries and Rent, . . . . .	9,933.33
Amount of all other claims, and Borrowed Money, . . . . .	20,000.00
Estimated amount required to reinsure existing Policies, . . . . .	620,000.05
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$696,607.84</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$336,768.84
Amount of Losses paid in 1870, . . . . .	\$67,879.76
Amount paid for Policies purchased, 1870, . . . . .	11,407.05
Amount of Salaries paid in 1870, . . . . .	21,734.22
Amount of Commission and Agency Expenses paid in 1870, . . . . .	95,728.59
Amount of Medical Examiner's Fees paid in 1870, . . . . .	10,186.33
Amount of State and other Taxes paid in 1870, . . . . .	8,089.03
Stationery, Advertising, Rents and office expenses in '70, . . . . .	59,862.60
Amount of Dividends paid to Stockholders in 1870, . . . . .	9,995.00
Amount of Disbursements paid Policy holders in 1870, . . . . .	16,554.00
Receipts over Payments, . . . . .	<u>35,331.94</u>

JOHN A. MORTIMER, *Secretary.*EDWARD A. JONES, *President.*CLARK M. EGGLESTON, *Sharon, Attorney.*

**LIFE INSURANCE COMPANIES.**

NEW YORK LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Amount secured to be paid, . . . . .	Mutual.
Amount of Assets treated as Surplus, . . . . .	15,878,517.70

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$1,217,981.13
Amount of Real Estate owned by the Company, . . . . .	1,734,008.65
Amount of First Mortgages on Real Estate, . . . . .	6,415,830.00
Amount invested in Bank Stock, . . . . .	71,377.00
Amount invested in United States Securities, . . . . .	2,463,327.50
Amount Invested in State, City, Town and County Securities, . . . . .	150,875.00
Amount invested in other Stocks, Bonds and Securities, . . . . .	1,597,870.00
Amount of Premium Notes, claimed as Assets, . . . . .	926,410.96
Amount of deferred Premiums to complete the year, . . . . .	691,859.12
Amount due from Agents, \$540,694.04; office Prem's due, \$23,784.07, 564,478.11	
Amount of all other Assets, viz.: Int. Acc'd on Mortg's Stocks, &c., . . . . .	65,600.23
Total Assets, . . . . .	\$15,878,517.70

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$317,958.00
Amount of Cash Dividends due and unpaid, . . . . .	40,268.00
Amount of gross dividends, payable, outstanding, . . . . .	260,588.03
Amount Insured by Existing Policies, . . . . .	\$111,335,358.00
Estimated amount required to reinsure existing Policies, . . . . .	12,500,000.00
Estimated Liabilities, exclusive of Capital, . . . . .	\$13,118,814.03

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$6,216,223.24
Amount of Losses paid in 1870, . . . . .	\$1,259,202.00
Amount paid to Annuitants, 1870, . . . . .	4,104.00
Amount paid for Policies purchased, 1870, . . . . .	477,089.00
Amount of Salaries paid in 1870, . . . . .	137,947.00
Amount of Commis'n and Agency Expenses paid in 1870, . . . . .	555,072.00
Amount of Medical Examiner's Fees paid in 1870, . . . . .	52,236.00
Amount of State and other Taxes paid in 1870, . . . . .	32,675.00
Amount of Office Expenses paid in 1870, . . . . .	277,748.00
Amount of Dividends paid in 1870, . . . . .	795,006.00
Receipts over Payments, . . . . .	\$2,624,341.93

WM. H. BEERS, *Act. Secretary.*MORRIS FRANKLIN, *President.*C. C. KIMBALL, *Hartford, Attorney.*

**LIFE INSURANCE COMPANIES.**

NEW JERSEY MUTUAL LIFE INSURANCE COMPANY, of Newark, N J.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$100,000
Amount actually paid in, . . . . .	\$100,000.00
Amount of Assets treated as Surplus, . . . . .	510,944.61
Whole amount of actual Capital and Surplus,	<u>\$610,944.61</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$13,765.08
Amount of First Mortgages on Real Estate, . . . . .	172,291.55
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	28,650.00
Amount invested in Bank Stock, Railroad Stock, Bonds, U. S. Securities, State, City, Town and Co., Securities, &c., . . . . .	50,100.00
Amount of Premium Notes, claimed as Assets, . . . . .	166,104.00
Amount of deferred Premiums to complete the year, . . . . .	41,732.41
Amount due from Agents, \$65,700.62; Office Prem's due, \$7,860. . . . .	73,560.99
Amount of all other Assets, viz: Loans to At'ts sec. by future Com'ns, . . . . .	39,590.32
Int. Accrued, \$7,370.52, Loss paid in error, \$10,000. Fur. &c., . . . . .	25,250.26
Total Assets, . . . . .	<u>\$610,944.61</u>

**Liabilities.**

Amount Insured by Existing Policies, . . . . .	\$8,176,314.00
Estimated amount required to reinsure existing Policies, . . . . .	480,000.00
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$480,000.00</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$276,719.29
Amount of Losses paid in 1870, . . . . .	\$58,752.60
Amount paid for Policies purchased, 1870, . . . . .	11,946.74
Amount of Salaries paid in 1870, . . . . .	15,686.04
Amount of Commission and Agency Expenses paid in '70, . . . . .	31,783.53
Amount of Medical Examiner's Fees paid in 1870, . . . . .	4,278.47
Amount of State and other Taxes paid in 1870, . . . . .	2,298.38
Amount of Stationery and Adv. paid in '70, Furn., etc., . . . . .	13,750.29
Dividends paid Stock and Policy Holders in 1870, . . . . .	24,803.94
Receipts over Payments, . . . . .	<u>\$112,719.33</u>

CHAS. H. BRINCKERHOFF, *Secretary.*WM. M. FORCE, *President.*L. H. G. BLOHM, New Haven, *Attorney.*

**LIFE INSURANCE COMPANIES.**

NEW ENGLAND MUTUAL LIFE INSURANCE COMPANY, of Boston.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Amount actually paid in, . . . . .	Mutual.
Amount of Assets treated as Surplus, . . . . .	9,685,481.66
Whole amount of actual Capital and Surplus, . . . . .	<u>\$9,685,481.66</u>

**Assests.**

Amount of Cash on hand and in Banks, . . . . .	\$228,806.27
Amount of Real Estate owned by the Company, . . . . .	600,000.00
Amount of First Mortgages on Real Estate, . . . . .	1,163,500.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	393,512.90
Amount invested in Bank Stock, . . . . .	263,298.00
Amount invested in Railroad Stock, . . . . .	543,511.00
Amount invested in United States Securities, . . . . .	633,000.00
Amount invested in State, City, Town and County Securities, . . . . .	2,359,959.00
Amount of Premium Notes, claimed as Assets, . . . . .	2,729,204.41
Amount of all other Assets, viz: Accrued Interest, . . . . .	104,975.39
Loans secured by Policies, Rents due and accrued, . . . . .	66,5614.67
Total Assets, . . . . .	<u>\$9,685,481.66</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	112,200.00
Amount of Cash Dividends due and unpaid, . . . . .	94,650.14
Amount Insured by Existing Policies, . . . . .	\$69,975,896.00
Estimated amount required to reinsure existing Policies, . . . . .	<u>\$7,450,900.00</u>
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$7,657,750.14</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$2,276,365.22
Amount of Losses paid in 1870, . . . . .	\$708,500.00
Amount paid for Policies purchased, 1870, . . . . .	232,289.17
Amount of Salaries paid in 1870, . . . . .	} 392,851.21
Amount of Commis'n and Agency Exp's paid in '70, . . . . .	
Amount of Medical Examiner's Fees paid in 1870, . . . . .	
Amount of State and other Taxes paid in 1870, . . . . .	
Amount of Stationery and Adv. paid in 1870, . . . . .	
Amount of Rents and Office Expenses paid in 1870, . . . . .	
Amount of Dividends paid in 1870, . . . . .	470,790.76 1,803,931.14
Receipts over Payments, . . . . .	<u>\$472,434.08</u>

JOSEPH M. GIBBENS, *Secretary.*BENJAMIN F. STEVENS, *President.*CHAS. ROBINSON, New Haven, *Attorney.*



**LIFE INSURANCE COMPANIES.**

NORTH AMERICA LIFE INSURANCE COMPANY, of New York City.

*Exhibit Condensed from their Report of January, 1, 1871.***Capital.**

Amount secured to be paid, . . . . .	Mutual.
Amount of Assets treated as Surplus, . . . . .	<u>5,075,913.00</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$90,518.35
Amount of Real Estate owned by the Company, . . . . .	118,770.05
Amount of First Mortgages on Real Estate, . . . . .	2,210,197.00
Amount of Loans secured by Collaterals Securities, . . . . .	3,300.00
Amount invested in United States Securities, . . . . .	212,550.00
Amount invested in State, City, Town and County Securities, . . . . .	19,342.50
Amount of Premium Notes, claimed as Assets, . . . . .	882,375.63
Amount of deferred Premiums to complete the year, . . . . .	699,333.75
Amount due from Agents; Office Premiums due, . . . . .	380,346.12
Amount of all other Assets, viz: Accrued Int., . . . . .	56,658.52
Loans on Policies, Rents, Re-insurance, Bal. on Ledger, &c., . . . . .	<u>333,334.10</u>
Total Assets, . . . . .	<u>\$5,075,913.00</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$89,000.00
Amount of Losses unadjusted. \$53,000. Losses resisted, \$2,000. . . . .	65,000.00
Amount of Cash Dividends payable to Policy holders, . . . . .	103,803.00
Amount of gross dividends, outstanding, payable to Stockholders, . . . . .	560.00
Amount Insured under existing Policies, . . . . .	\$34,501,572.00
Estimated amount required to reinsure existing Policies, . . . . .	<u>4,512,431.00</u>
Estimated Liabilities, exclusive of Capital, . . . . .	\$4,760,794.00

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$1,783,721.30
Amount of Losses paid in 1870, . . . . .	\$601,030.14
Amount paid to Annuitants in 1870, . . . . .	3,669.50
Amount paid for Policies purchased in 1870, . . . . .	71,300.88
Amount of Salaries paid in 1870, . . . . .	77,655.19
Amount of Commission and Agency Expenses paid in '70, . . . . .	127,118.23
Amount of Medical Examiner's Fees paid in 1870, . . . . .	10,716.62
Amount of State and other Taxes paid in 1870, . . . . .	38,174.89
Stationery, Advertising, Rents and Office Exp., in '70, . . . . .	206,171.10
Amount of Dividends paid in 1870, . . . . .	<u>159,643.96</u>
Receipts over Payments, . . . . .	\$488,238.79

HENRY C. MORGAN, *Secretary:*A. D. MORGAN, *President.*A. C. STREETER, New Haven, *Attorney.*

**LIFE INSURANCE COMPANIES.**

STATE MUTUAL LIFE INSURANCE COMPANY, of Worcester, Mass.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Amount secured to be paid, . . . . .	Mutual.
Assets treated as Capital, . . . . .	\$1,146,671.84
Whole amount of actual Capital and Surplus,	\$1,146,671.84

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$18,450.09
Amount of Real Estate owned by the Company, . . . . .	53,035.87
Amount of First Mortgages on Real Estate, . . . . .	87,375.00
Amount of Loans secured by Collaterals and Personal Securities, . . . . .	7,200.00
Amount invested in Bank Stock, . . . . .	165,125.25
Amount invested in United States Securities, . . . . .	281,565.00
Amount invested in State, City, Town and County Securities, . . . . .	466,000.00
Amount of Premium Notes, claimed as Assets, . . . . .	19,639.42
Amount of deferred Premiums to complete the year, . . . . .	14,172.60
Amount due from Agents, ; Office Premiums due, . . . . .	6,858.61
Amount of all other Assets, viz., Accrued Int., and Loans, . . . . .	27,250.00
Total Assets, . . . . .	\$1,146,671.84

**Liabilities.**

Amount of Losses unadjusted, \$18,000. Losses resisted, none, . . . . .	18,000.00
Amount of Cash Dividends due and unpaid, . . . . .	10,332.58
Amount Insured by Existing Policies, . . . . . \$6,142,860.00	
Estimated amount required to reinsure Existing Policies, . . . . .	984,372.71
Estimated Liabilities, exclusive of Capital, . . . . .	\$1,012,705.29

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$242,759.06
Amount of Losses paid in 1870, . . . . .	\$41,012.58
Amount paid for Policies purchased, 1870, . . . . .	3,159.68
Amount of Salaries, Com'n and Agency Expenses, Med. Examiner's Fees, State and other Taxes, Stationery and Adv.. Rents, &c., paid in 1870, . . . . .	26,969.83
Amount of Dividends paid in 1870, . . . . .	58,360.38
Receipts over payments, . . . . .	\$113,264.59

CLARENDON HARRIS, *Secretary.*ISAAC DAVIS, *Vice President.*WM. S. CAMP, *Middletown, Attorney.*

**LIFE INSURANCE COMPANIES.**

SECURITY LIFE INSURANCE AND ANNUITY COMPANY of New York.

*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital,	\$110,000
Amount actually paid in,	\$110,000.00
Amount of Assets treated as Surplus,	2,854,931.38
Whole amount of actual Capital and Surplus,	\$2,964,931.38

**Assets.**

Amount of Cash on hand and in Banks,	\$151,054.69
Amount of First Mortgages on Real Estate,	13,500.00
Amount invested in United States Securities,	391,900.00
Amount invested in State, City, Town and County Securities,	43,500.00
Amount of Premium Notes, claimed as Assets,	1,418,531.34
Amount of deferred Premiums to complete the year,	286,735.36
Amount due from Agents, and Office Premiums due,	427,372.55
Amount of all other Assets, viz: Accrued Interest,	19,549.80
Loans sec. by Policies, Re-insurance, Furn. and fixtures,	311,787.64
Total Assets,	\$2,964,931.38

**Liabilities.**

Amount of Losses acknowledged,	\$37,500.00
Amount of Losses unadjusted, ; Losses resisted,	5,000.00
Amount of Cash dividends, payable to Stockholders,	1,317 50
Amount paid to Annuitants in 1870,	933.33
Amount Insured by Existing Policies,	\$36,497,518.00
Estimated amount required to reinsure existing Policies,	2,587,620.50
Estimated liabilities, exclusive of Capital,	\$2,632,371.33

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870,	\$992,256.04
Amount of Losses paid in 1870,	\$343,581.84
Amount paid to Annuitants, 1870,	937.91
Amount paid for Policies purchased, 1870,	33,680.92
Amount of Salaries paid in 1870,	50,289.75
Amount of Commission and Agency Expenses paid in '70,	276,440.07
Amount of Medical Examiner's Fees paid in 1870,	16,282.62
Amount of State and other Taxes paid in 1870,	12,288.88
Amount of Stationery and Advertising paid in 1870,	30,246.00
Amount of Rents and Office Expenses paid in 1870, etc.,	13,928.41
Amount of Dividends paid to Stockholders in 1870,	26,641.70
Amount of all other Disbursements paid in 1870,	8,850.35
Receipts over Payments,	\$179,107.51

ISAAC H. ALLEN, *Secretary.*ROBERT L. CASE, *President.*FREDERICK H. BROWN, New Haven, *Attorney.*



**LIFE INSURANCE COMPANIES.**

UNION MUTUAL LIFE INSURANCE COMPANY, of Augusta, Maine  
*Exhibit Condensed from their Report of January 1, 1871.*

**Capital.**

Amount secured to be paid, . . . . .	Mutual.
Amount of Assets treated as Surplus, . . . . .	\$5,295,233.27
Whole amount of actual Capital and Surplus,	<u>\$5,295,233.27</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$120,810.45
Amount of Real Estate owned by the Company, . . . . .	4,400.00
Amount of First Mortgage on Real Estate, . . . . .	2,361,192.72
Amount of Loans secured by Policies, . . . . .	14,286.28
Amount invested in United States Securities, . . . . .	116,487.50
Amount invested in State, City, Town and County Securities,	102,620.00
Amount of Premium Notes, claimed as Assets, . . . . .	2,017,626.25
Amount due from Agents, and Office Premiums due, . . . . .	354,937.00
Amount of all other Assets, viz: Accrued Interest . . . . .	141,967.00
Amount of Loans, Bills Receivable, Ledger Balances, &c ,	62,306.07
Total Assets, . . . . .	<u>\$5,295,233.27</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$51,400.00
Amount insured by Existing Policies, . . . . .	\$36,008,360.00
Estimated amount required to reinsure existing Policies, . . . . .	4,600,901.36
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$4,652,301.36</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, in cash and Notes,	\$1,828,238.21
Amount of Losses paid in 1870, . . . . .	\$417,840.19
Amount paid Endowment Policy, . . . . .	1,000.00
Amount paid for Policies purchased, 1870, . . . . .	85,425.21
Amount of Salaries paid in 1870, office Expenses, &c.,	94,425.94
Amount of Commis'n and Agency Expenses paid in '70,	139,723.61
Amount of Med. Examiner's Fees paid in 1870, . . . . .	14,325.22
Amount of State and other Taxes paid in 1870, . . . . .	14,522.87
Amount of Stationery and Advertising paid in 1870, . . . . .	29,309.58
Amount of Dividends paid in 1870, . . . . .	394,570.88
Receipts over Payments, . . . . .	<u>\$637,094.71</u>

WHITING H. HOLLISTER, *Secretary.*

HENRY CROCKER, *President.*

HENRY C. BARTON Hartford, *Attorney.*



**LIFE INSURANCE COMPANIES.****WIDOWS AND ORPHANS BENEFIT LIFE INSURANCE COMPANY,**  
of New York City.*Exhibit Condensed from their Report of January 1, 1871.***Capital.**

Authorized Capital, . . . . .	\$200,000.
Amount actually paid in, . . . . .	\$200,000.00
Amount of Assets treated as Surplus, . . . . .	1,399,068.71
Whole amount of actual Capital and Surplus, . . . . .	<u>\$1,599,068.71</u>

**Assets.**

Amount of Cash on hand and in Banks, . . . . .	\$112,186.83
Amount of First Mortgages on Real Estate, . . . . .	868,700.00
Amount invested in United States Securities, . . . . .	375,186.25
Amount invested in State, City, Town and County Securities, . . . . .	78,400.00
Amount of deferred Premiums to complete the year, . . . . .	87,513.28
Amount due from Agents, and Office Premiums due, . . . . .	62,509.05
Amount of all other Assets, viz.: Interest Accrued, Balances, &c., . . . . .	14,573.50
Total Assets, . . . . .	<u>\$1,599,068.71</u>

**Liabilities.**

Amount of Losses acknowledged, . . . . .	\$6 43176.91
Amount of Losses unadjusted, and Losses resisted, . . . . .	1,200.00
Amount of Cash Dividends due and unpaid, . . . . .	7,000.00
Amount of Special Reserve, . . . . .	20,445.40
Amount Insured by Existing Policies, . . . . .	\$11,215,514.00
Amount of all other liabilities not heretofore stated, . . . . .	5,083.34
Estimated amount required to reinsure existing Policies, . . . . .	1,246,192.50
Estimated liabilities, exclusive of Capital, . . . . .	<u>\$1,323,097.83</u>

**Balance Sheet for 1870.**

Gross Receipts from all sources in 1870, . . . . .	\$642,332.46
Amount of Losses paid in 1870, . . . . .	\$143,295.00
Amount paid to Annuitants, 1870, . . . . .	468.90
Amount paid for Policies purchased, 1870, . . . . .	48,231.12
Amount of Salaries paid in 1870, . . . . .	22,563.32
Amount of Commission and Agency Expenses paid in 1870, . . . . .	64,409.00
Amount of Medical Examiner's Fees paid in 1870, . . . . .	7,757.02
Stationery, Advertising, Rents and Office Expenses in '70, . . . . .	9,764.06
Amount of Dividends paid to Stockholders in 1870, . . . . .	63,751.04
Amount of all other Disbursements paid in 1870, . . . . .	39,595.95
	<u>399,835.65</u>

Receipts over payments, . . . . .	\$242,496 80
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ROBERT A. GRANNISS, *Secretary.*CHAS. H. RAYMOND, *President.*HORACE P. HOADLEY, New Haven, *Attorney.*

**STATEMENT OF THE CONDITION OF ALL THE LIFE INSURANCE COMPANIES OF OTHER STATES  
DOING BUSINESS IN THE STATE OF CONNECTICUT.**

NAMES OF COMPANIES.	Cash Capital.	Gross Assets.	Gross Cash Liabilities.	Amount Insured.	Required to Reinsure included be- fore.	Total Income.	Total Paid out.
Amicable Life, New York. ....	\$130,000	\$228,146	\$77,118	\$2,052,358	\$82,478	\$73,613	\$80,088
American Popular, N. Y. ....	100,000	362,131	296,831	6,405,718	291,275	194,514	161,940
Atlantic Mutual, N. Y. ....	110,000	786,310	740,882	10,086,308	619,449	361,051	220,278
Berkshire Life, Mass. ....	28,000	1,562,588	1,242,026	10,027,753	1,225,254	543,997	257,641
Brooklyn Life, New York. ....	125,000	1,677,516	1,460,657	14,725,063	1,442,871	767,412	510,219
Continental Life, New York. ...	100,000	4,505,238	4,149,939	53,717,600	862,057	1,363,658	918,595
Craftsmen's Life, " ..	200,000	354,184	189,496	2,623,496	122,496	213,198	179,980
Empire Mutual Life, " ..	100,000	633,077	527,414	10,014,007	465,695	531,495	335,779
Germania Life, " ..	200,000	3,820,665	3,530,491	32,144,461	3,455,000	1,644,892	1,034,106
Globe Mutual Life, " ..	100,000	2,717,906	2,564,416	29,823,096	2,436,898	1,336,623	854,620
Hahnemann Life, Ohio. ....	200,000	485,560	303,150	7,099,198	300,150	212,318	151,857
Homeopathic Mutual Life, N. Y.	150,000	326,028	168,287	4,570,221	157,000	176,094	122,854
John Hancock Life, Mass. ....	100,000	1,915,592	1,342,301	17,924,993	1,295,239	718,972	381,000
Hope Mutual Life, New York ..	150,000	462,819	338,946	9,732,747	295,295	180,311	166,022
Home Life, " ..	125,000	2,670,005	2,169,060	22,692,409	2,065,690	726,921	425,831
Knickerbocker Life, " ..	100,000	7,398,991	6,808,609	61,547,652	6,403,771	2,326,485	598,728
Massachusetts Mutual Life, Mass.	Mutual.	3,419,303	3,206,866	32,490,597	3,061,283	1,007,165	640,578
Manhattan Life, New York. ....	100,000	6,924,116	5,240,134	43,470,076	4,905,575	1,751,812	1,157,612
Metropolitan Life, New York ..	200,000	838,914	727,967	13,303,608	480,245	327,740	288,879
Mutual Benefit Life, N. J. ....	Mutual.	22,140,058	20,015,522	135,000,000	16,500,000	4,616,619	2,420,491
Mutual Life, New Jersey. ....	Mutual.	44,465,930	41,619,033	242,004,888	41,108,179	14,647,490	7,476,657
National Life, Washington, D. C.	1,000,000	1,735,551	815,000	8,428,038	800,000	739,680	371,855
National Life, New York City,	150,000	891,811	696,607	3,908,766	620,000	326,708	301,436
New York Life, N. Y. ....	Mutual.	15,878,517	13,118,814	111,335,358	12,500,000	6,216,223	3,591,881
New Jersey Mutual Life, N. J. ...	100,000	610,944	480,000	8,176,314	480,000	276,719	163,999
New England Mutual Life, N. J.	Mutual.	9,686,481	7,657,750	69,975,896	7,450,900	2,276,365	1,803,931
North America Life, N. Y. ....	Mutual.	5,075,913	4,760,794	34,501,572	4,512,431	1,783,721	1,295,481

State Mutual Life, Mass.....	Mutual.	1,146,671	1,012,705	6,142,860	984,372	242,759	129,494
Security Life, New York... ..	110,000	2,964,931	2,632,371	36,497,518	2,587,620	992,256	813,148
Union Mutual Life, Maine.....	Mutual.	5,295,233	4,652,301	36,008,360	4,600,900	1,828,238	1,191,143
Widows and Orph's B. Life, N.Y.	200,000	1,599,068	1,323,097	11,215,514	1,246,192	642,352	399,835
Total.....	\$3,878,000	\$154,574,197	\$133,838,104	\$1,084,945,630	\$122,258,316	\$49,047,441	\$28,385,308

The above table is a fair exhibit of the Companies reporting to this Department, except that the premiums receivable in future years could not be embraced to any advantage.

As a matter of course, their great strength lies in their premiums to be received in each successive year—and although the liabilities of all the Companies herein embraced, for Policies in force, amounts to over one thousand millions of dollars, the sum is not greater than they will be able to meet if economy and moderate dividends shall mark the administration of the Companies.

#### E R R A T A .

Errors have appeared in the Life Insurance part of this Report, which are difficult to account for, and the original manuscript being filed away, among the Legislative documents of the State, cannot be examined to test the correctness of the compositor and proof-reader, without too much delay.

Page 94—*Continental Life*, at the close of the Statement, should read, RECEIPTS OVER PAYMENTS, \$445,063.34.

Page 95—*Craftsmen's Life*, should have had \$80,090 added to its Capital Assets, making the same \$434,184.74.

Page 96—*Germania Life*, at the close of the Statement should read, RECEIPTS OVER PAYMENTS, \$610,786.32. The last line of Liabilities should read, AMOUNT REQUIRED TO REINSURE EXISTING POLICIES, \$2,417,692.92; and the footing should be, \$2,494,183.68.

Page 97—*Empire Mutual Life*, at foot of Statement, should read, RECEIPTS OVER PAYMENTS, \$195,715.54.

Page 109—*Mutual Life*, at the close of the Statement should read, RECEIPTS OVER PAYMENTS, \$7,170,833.85; and the last line in the Liability account should read, COMPUTED AMOUNT REQUIRED TO RE-INSURE EXISTING LIABILITIES, \$41,108,179.80.



## FIRE INSURANCE COMPANIES.

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The transactions of the Fire Insurance Companies embraced in the forgoing exhibits, in the aggregate, are very large, and the risks assumed by them, are scattered over this and other States! So far as Connecticut is concerned, citizens appear to be satisfied, no complaints having been made to the Department during the past year.

This was not the case last year, for very serious complaints were made against the "Market," and the "Resolute" fire insurance companies of New York, by responsible and reliable citizens, in the matter of losses, as was stated in our Report, but which came before the committee of the Legislature so late, that no action could be taken.

Mention is made of the cases now, because the "Resolute" had continued its business in the State, in violation of law, and when losses accrued, claimed that they could not be sued in this State, and that they would litigate in the State of New York, until the claimants were tired of the expenses.

In the case of the "Market," they would not pay their part of the loss at a greater rate than fifty cents on the dollar, or about that, and thus did not meet the fair demands of citizens of this State. There was no law to be found on the Statute Book for ruling the company out of the State, for the reasons named, therefore it was not done.

Litigation is not a very rapid way to obtain justice, and claimants on Fire Insurance Companies will submit to their dictation as to settlements, and take almost any percentage, rather than be drawn through legal proceedings, which sometimes continue for a series of years.

Your Commissioner, therefore, recommends the passage of a law, which will make suits for losses claimed to be due from Insurance Companies, privileged cases for trial, and also,



that the present Insurance laws be so amended, that citizens may appeal to the Commissioner of Insurance, and show cause why he should withdraw his certificates of authority to any Insurance Company which, for unsound condition, after admission, or mal practice, is found to be unworthy of public confidence.

Stringent laws in these respects will not embarrass well-managed and honorable companies, while those of another class will be sure to be reformed, or be sent out of the State.

#### POLICIES OF INSURANCE.

In the year 1868 the Legislature almost unanimously passed a law, which provided for the adoption of a uniform printed policy by Fire Insurance Companies, so far as conditions were concerned—and that all of said conditions should be embraced in the Policy over the signature of the officers of the Company.

This law was distasteful to the Insurance Companies, and the following year they secured its repeal, in the full expectation, however, that a board or committee of Insurance officials, representing the leading Insurance Companies of different States, would, in convention, agree upon a uniform policy, and thus render special legislation unnecessary. Such however has not been the result, and the practice still prevails, of each company using a different form of Policy, some of which are so complicated and long, and contain such numerous restrictions, that it can hardly be said, they are of any value to the holder.

It is due to the Insurance Companies to say, that they rarely avail themselves of the complications of their Policies, and they claim that the peculiar provisions contained therein are not intended for application to honest insurers and honest losers of property insured. This however is not always true, for in the case of the companies before referred to, they forced unjustifiable settlements, and still owe in honor the unpaid portions of their policies to the Messrs. Parkers, and to Messrs. Tuttle, Morehouse and Taylor—at least it so appeared by the facts testified to before your Commissioner, and embraced in

his report for last year, to which reference is now made, as having a bearing upon the subject of uniform policies.

The largest and most extensive Fire Insurance Company in the United States, is the "Ætna," of this State. The age and success of this Company justifies the belief, that its form of Policies, and manner of conducting business, are somewhere near correct. Its form of Policy, for the most part, is the same as it was twenty-five years ago, and it contains but nine hundred and twenty words, while the Roger William, of Massachusetts, contained 2,335 words, and the Market, of New York, contains over 4,000 words.

Lengthy and complicated Policies of Insurance will never overcome the difficulties which follow the appointment of incompetent agents, and the errors they commit, by insuring unworthy men; and just so long as Insurance Companies employ this class of agents, and they, allowed to issue Policies, transact business and receive commissions, just so long will Insurance Companies pay out nearly or quite all of the money they receive, starve out their stockholders, and more or less of them get into the hands of Receivers.

#### THE HOME OF NEW HAVEN.

There was never a more reckless business conceived of, than may be made out of Fire Insurance, and when we think of the case of the "Home," at our own door, we blush for its management, while we strongly endorse the integrity of its stockholders and directors, not that the latter did wisely, or that they were influenced by good counsel as manager, for the result shows they were made to believe, by an officer of the Company, that unearned premiums, were profits realized, and that borrowing and returning was an every day affair, especially, when after receipts seemingly justified the return.

The rocks which dashed the "Home" of New Haven in pieces, are all within the soundings we have been taking for the fraternity in former reports and the only difference which marks the case of this Company, is, its rapidity:—after they had doubled their capital twice, doubled their agencies, and quadrupled their risks on many classes of property, the business became too large to control, and the losses fol-

lowed too rapidly to make them known to the directors; as a matter of course, confusion and uncertainty soon involved the Company in such a dense cloud, that the directors, in a state of alarm, ended the matter, as they supposed, by placing the property in the hands of a Trustee, to be closed up, for the benefit of the creditors, with no prospect of saving much, if anything, for the stockholders.

The Trustee, Gen. S. E. Merwin, is making rapid progress in the discharge of his duties, and if not embarrassed by angry creditors, will give them the full benefit of all the assets of the Company, at a comparatively early day.

Much complaint has been made to your Commissioner, by letters from all parts of the country, because the Department allowed this Company to run such a career without restraint, and for not preventing the Company from converting unearned premiums into capital stock, and thereby deceiving themselves and the public; and when answered, that the jurisdiction of the Department did not extend over the home companies, as in other States, the complainants remonstrate against the law, and urge that it be changed, so as to be in conformity with the laws of other States.

#### THE COMPANIES ADMITTED.

Every citizen can judge of the strength of each Company admitted, by an examination of the statements herein contained. The severe manner in which we have adverted to the general expenses and management of Fire Insurance Companies, does not apply to individual cases, therefore is not intended to prejudice the Companies admitted.



## LITIGATION.

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It is not unfrequently noted by Insurance Companies, in their communications to the public, that they have never litigated a loss.

This, of itself, is a creditable statement, but when considered in all of its bearings, it may not prove so creditable, for investigation may show, that such a course of business has emboldened arson, carelessness, and other crimes, which cause immense losses to Insurance Companies, and lead to great public insecurity.

At the same time, honest and well-meaning Insurance Companies are slow to go to litigation, for they rarely get justice—indeed, business men of all classes are learning from sad experience, that courts of law are no places for them, and that loss of time, expenses, and the ruling out of the main testimony in their cases, leave them little or nothing to hope for ; therefore, when an Insurance Company advertises that they have never litigated a loss, it is to be presumed that they have no confidence in the Courts, or that they go it blind, and endeavor to charge premium enough to stand the average results of Insurances.



## ADVERTISING.

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The expenses of this agency for enlarging the business of an Insurance Company, are variously estimated by their managers. At best, as now conducted, it is an expensive affair, and while it is designed to facilitate and aid the agent, he makes no account of it in his claims for services or commissions.

There is a limit beyond which no Insurance Company should go; for, just to the extent that premiums received are paid away, the stockholder is liable to have his dividend diminished to less than the interest on his money, or cut off entirely. In old times, "*losses*" constituted the largest disbursement of an Insurance Company, but in later years it is not so, for "salaries," "commissions," "advertising" and "expenses," absorb receipts largely, and losses use up the balance.

Insurance Journals are multiplying to an extent which forbids all being supported; as a general rule, they are read mostly by Insurance men, and do not circulate largely among the people so as to influence the taking of policies to any considerable extent.

Insurance Companies alone can control this branch of expense. Such Journals as really contribute to the combining of results and experiences—making Tables—disseminating information—writing high-toned reviews of principles and reports of State Insurance officials and of Insurance Companies, &c., should be selected and sustained liberally by advertisements and subscriptions; but when one of an opposite character is detected, respectable Insurance Companies should withdraw their patronage.

## LOSSES AND EXPENSES.

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In former reports we have deemed it right to comment somewhat pointedly on losses and expenses, because we have seen the disastrous effects of both, in the balance sheets of Insurance Companies, and we see them struggling, contriving, and legislating among themselves to lessen both, without meeting with any material success.

Under these circumstances we again refer to the subject, and with the intention of enforcing our views in more positive language; for the evils are not diminishing, and, as a general thing, the Companies are blind to the remedies and reforms they should apply.

Any one would suppose that the pleasant position of officers of Insurance Companies, and the certainty of annual salaries, would prompt them to use the keenest of their wits to secure successful results to stockholders, and they do, in many cases, and deserve praise; but as there is another class, there would be no harm in occasional efforts to improve the management by changes.

In the matter of reforms, we say, *that they cannot be brought about by advancing the rates of Insurance, nor by the organization of local boards of underwriters, nor by the employment of what are called adjusters*—and for the following reasons:

1st. *Rates of Premiums*, as a general thing, are high enough, or are too high, already.

2d. *Boards of Underwriters*, as has been seen, are short-lived, and while they live, induce the very class of agents they are designed to control, to invent some new contrivance to nullify the whole thing.

3d. *Traveling Adjusters*, merely settle (as well as they can) losses on property, which they never saw, and which, in a large number of cases, ought not to have been insured at all, and are sent out, (except necessarily in cases of large fires, and numer-

ous insurances.) simply because the agent is not deemed competent to finish the business he has been authorized to begin.

We have known that Boards of underwriters have fixed premiums on all classes of property, priced nearly every building in small cities and towns, and the members bind themselves in honor, not to vary in prices; but in less than a month, to retain their customer, or to get a customer away from another member of the Board, some of them will write their policies at full prices, and when they settle with the insured, they will allow him, or them, a commission of from ten to twenty-five per cent. to overcome the advance made on the premiums by the local Board of Underwriters, the loser of the risk is left in amazement as to why his customer has left him and gone to another agent, where he has to pay as he supposes, the same price.

A few months of experience brings to light these practices, and explodes the local board.

Besides, there can be no absolute rule for pricing risks on property; for, as we have said before, while the property itself, and the building in which it is contained, are all right, the surroundings may be such, that partial or total loss is almost sure to overtake the insurance.

And it may be, that while property and buildings and surroundings are all right, the ownership and attending circumstances may be all wrong, and insurance at any price should be declined.

And it may be, that the same kind of property, in worn wooden buildings, neither comely nor conveniently located, forms a good risk, because the owner and his business relations are just what they should be, to make himself and every workman and neighbor interested to perpetuate them, so as not to lose a day's work, or the trade of the operatives.

The same may be said of vessels and officers. An iron steamer, with compartments to save itself, may be lost by officers who, by intoxication, become incapable of duty, or may be run upon rocks shore wise, on a bribe from another line, while a wooden sailing vessel, twice as old, may be a good risk with her trusty officers, at half or quarter of the relative price of the steamer.



In the case of property on shore, a high rate of premium is no recommendation to the risk. The local Board of Underwriters cannot establish prices for moral hazards, and the traveling adjuster arrives too late to be of any service whatever, except (not having seen the property) to get the Companies off as well as he can, and report to the home office how successful he has been in the settlements.

These facts and experiences bring us down to the *agent himself*. Who is he, *what* is he, and *what ought he to be*?

1st. We say that he is a citizen, in some city or town so far from the home office of the Company, that he cannot advise with them, or show the property offered to him for insurance.

2d. That in Fire Insurance he is the writer of Policies for the company or companies he represents, and he must do it on his own judgment.

3d. He ought to be a man well calculated to judge of men—well informed as to, and enjoying the confidence of, the community in which he lives, and capable of understanding the effect which his losses or gains have upon the dividends of stockholders who have, through their officers, made him their agent.

This subject was carefully alluded to in our fourth and fifth Annual Reports, on the ground that the balance sheets of Fire Insurance Companies, as exhibited by the annual reports of State Insurance officials, (this State included,) showed that losses and expenses were too heavy, and that the capital employed did not, on an average, get any thing like the return it was entitled to, and we *assumed* that there was a general, though by no means a universal fault, in the selection of agents, all over the country.

We now know that it is so, for there could not be such a persistent annual epidemic of losses and expenses without a cause and the cause being traced; and having made during the last year a careful review of the business, as far west as Kansas City, and south below Richmond, and devoted sufficient time to canvass agencies on the routes, and being previously familiar with nearly all portions of New England, we say, most decidedly, that the disasters to Fire Insurance Companies can, for the most part, be traced to incompetent agents, and that



*higher rates of premiums, local boards of underwriters, and traveling adjusters*, will never entirely reform the balance sheets of this class of Insurance Companies.

The fault, therefore, lies with the *home offices*, and not with the agents, who, in the main, do the best they know how—in getting rid of the Policies put into their hands, and who, being honest, rarely omit to pay over the funds they receive.

But they do not understand the business, and the home office knows it, for they are inserting every conceivable condition in their policies—reserving among their conditions the right to cancel, as fast as monthly reports are received, by returning the unearned premium, at some rate or other, and when losses come, they send out the “adjuster,” because they know that the agents they have, in many localities, are unfit to be trusted with the settlement of losses.

Every community contains more or less property which, for some reason, ought not to be insured at all—but it is insured, and it burns, and often burns out whole neighborhoods and districts.

In these remarks and statements, we are not personal—they are made, hoping to open the eyes of all parties interested.

## LIFE INSURANCE COMPANIES.

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At the present time there are thirty-one Life Insurance Companies, incorporated by other States, doing business in this State.

Of these, *eight* are purely mutual—possess no capitals, and rest on their accumulations, which amount, including all assets claimed by them as such, to \$104,107,106 ; with liabilities, including the “*reinsurance reserve*,” to cover the estimated amount necessary to keep the Companies sound, of \$96,043,785 ; leaving an estimated surplus of \$8,063,321.

The amount insured, by these mutual Companies, in figures, is \$657,459,321 ; so that, it appears, they have now in hand, assets, realized and unrealized, equal to about 16 cents on account of each dollar insured.

The remaining Companies (23) are Stock Companies, possessing capitals as follows :

1 has a capital of	\$ 28,000
8 have capitals, each, of	100,000
2 have capitals, “ “	110,000
2 have capitals, “ “	125,000
1 has a capital of	130,000
3 have capitals, each, of	150,000
5 have capitals, “ “	200,000
1 has a capital of	1,000,000

The whole combined have capitals amounting to \$3,878,000.

Their realized and unrealized assets, including capital, amount to \$50,467,089 ; leaving an estimated surplus of \$8,794,146, over and above capital and cash liabilities.

The amount insured by these Companies is \$124,486,109, so that it would appear that they have now in hand, in assets realized, and not realized, a little over 11 cents on each one dollar insured.

By the above exhibit of the two classes of Companies, it

appears that the Mutual Companies have a larger per cent. of assets on liabilities than the Stock Companies; but as the Mutual Companies are much the oldest, the comparison should not be made to prejudice the Stock Companies.

The two classes combined, possess assets, including capital, deferred premiums, premium notes, &c., &c., amounting to \$154,574,197; and cash liabilities, for losses, expenses, and "reserve," to cover reinsurance, \$133,838,104; leaving an estimated surplus of \$30,736,092.

And they have outstanding Policies of Insurance in force, of \$1,084,945,630.

The gross assets claimed by the Companies, if applied *pro rata* to the face of policies outstanding, would pay 15 cents and a small fraction, on each dollar insured.

That is to say, all of the Companies combined, have policies in force, amounting to one thousand and eighty-four millions, nine hundred and forty-five thousand, six hundred and thirty dollars; and have present assets, amounting to one hundred and fifty-four millions, five hundred and seventy-four thousand, one hundred and ninety-seven dollars, which is equal to about fifteen cents on the dollar for every dollar insured.

Some may ask, if this is so, how can these Companies be solvent? The answer is, that the future premiums to be received, will sustain the Companies and enable them to pay for each policy one hundred cents for every dollar insured; and with economical management may pay back, in dividends or otherwise, some portion of the premiums paid.

But we warn policy holders not to be drawn into the dividend vortex by demanding too soon, and in too liberal percentages, dividends, when there are outstanding more than one thousand millions of dollars in policies to be paid within the life time of a generation.

The national debt at this time is about two thousand three hundred millions of dollars; only a little more than double the amounts insured by thirty-one Life Insurance Companies admitted into this State, out of over sixty now in active operation. The whole combined are now liable for very nearly or quite as much as the whole national debt.

The number of persons whose lives are insured in the



United States, is estimated at about five hundred thousand, it may be that they number six hundred thousand. This is a very small number of persons, [compared with the whole population of the United States], to assume to pay unitedly a sum of money, by annual contributions, to Life Insurance Companies, equal to the present national debt; and yet it is so, and most unquestionably will be done.

With such facts before us, as to the undertakings of a comparatively few individuals, it is idle to pretend that there is any question as to the payment of the national debt, resting as it does on the population of the whole country and upon every dollar of property within its borders.

Having commented freely but not personally on the expenditures of Fire Insurance Companies, we regret to find it necessary to bestow the same comments on Life Insurance Companies. As in Fire Insurance, "Losses" are not necessarily the heaviest outgoes. Year by year expenses and disbursements have crept into every kind or branch of Insurance, which are not legitimate or germane to the business, and the officers, in a blind infatuation that such drafts on their treasuries will stop, submit to the demands and hope for relief.

In this they have been disappointed, and finding that a part of these outgoes are in consequence of peculiar exactions by sister States and their Commissioners, they are less and less inclined to rebel.

We are free to say, in their behalf, that diversified and retaliatory legislation by sister States, have cost Life Insurance Companies several hundred thousand dollars, and founded as such laws have been, upon no well established rules or laws of Life Insurance, not one of the States, or its legalized official, has inaugurated a single schedule or report which will stand on the judgment of a first class practical Life Insurance officer or actuary.

This was quickly perceived by the Hon. Geo. W. Miller, the new Superintendent of the Insurance Department of New York, on assuming the duties of the Department, and he as quickly devised a remedy, by calling all similar State officials together to consider what ought to be done, and how to pro-



vide a way to submit to the States the result of their joint deliberations, all of which will be stated hereafter.

States have no right to embarrass and weaken Life Insurance Companies, and Legislatures must open their eyes to their just demands, as well as to the claims of all other departments of Insurance.

In the absence of acknowledged standards, no one knows what new law may be put in practice by States, or by a Commissioner, who has had no practicable knowledge of Insurance; and such men and such legislation may, as was the case in Russia, so far mislead as to imperil sound Companies and make it necessary to repair damages by special appropriations to fulfil contracts, which legislation had virtually destroyed.

In other words, States may take into their own hands the establishment of standards, which, if carried out by arbitrary laws, may bankrupt the Companies. If this is done, as was once the case in Russia, it would become the duty of the State to step in and supply the deficiencies which had been occasioned by their own mistaken standards, and save the Companies from bankruptcy.

Therefore we commend to all the States, a careful consideration of the results which shall accrue to the cause, by the combined wisdom of the Congress of State Insurance officials in October next.

Just to the extent a State official is capable of comprehending the magnitude and the responsibility of the subject of Insuring all of the property, on land and afloat, and insuring the lives of hundreds of thousands of the inhabitants, the responsibility weighs heavily, and unless the whole case can be met by wise legislation, the field had better be abandoned.

Indeed, we say it would be better for the State to abandon all control over Life and other Insurance Companies, than to undertake by legislation to manage such Companies amid such hereditary ignorance as prevails in the suicidal legislation of many of the States.

And rather than continue to manage a department which is only half established, and half way legislated into authority to act, it would redound to personal credit to withdraw, and be

no longer subjected to the censure of wise and good men for omitting to do that which the law confers no authority.

The State of Connecticut is always just, and in the main is wise, and there is no doubt whatever that the Legislature will meet the demands of the times, and enlarge the Department, so as to embrace domestic Insurance Companies as well as those of sister States, and the Governor will discharge his duty by appointing a Commission, whose ability and experience will continue to reflect credit upon the State, and deserve a high position in the councils of associated State officials.

It should not be overlooked that this State stands next to the State of New York in Insurance transactions, therefore her laws and her officials should command the respect of sister States, and secure, if possible, a respectful coöperation of States and officials, in codifying State laws and establishing uniform State blanks for reports and annual exhibits by all classes of Insurance Companies.

We have devoted some space in former reports to the details of Life Insurance, and respectfully refer to the same, as a part of our present report on this department of Insurance.

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#### FOREIGN INSURANCE COMPANIES.

In my report of May, 1870, reference was had to Foreign Insurance Companies, and suggestions were made respecting legislation with regard to these Companies.

The term Foreign is here used in its proper sense; that is, in reference to Companies organized in, or under the law of Foreign Governments, and not to Companies chartered by the States of this Union, which are by no means Foreign Companies.

It is gratifying that the introduction in this country of Foreign Companies, properly so named, compels the abandonment of the misnomer, Foreign, as applied to Companies from other States.

At the last session of the Legislature of the State of New York, an act was passed with regard to the Foreign Companies,

the general principles of which are so just and necessary, and evidently have been so well considered that, without hesitation, I commend to your consideration the passage of an act which shall be essentially similar.

The section with regard to re-insurance is, in my judgment, insufficient. It ought to be evident to any one, that no Company, whether Foreign or American, should be permitted to assume an amount of risk in any building or neighborhood, greater than it regards it prudent to retain without re-insurance. There may be circumstances in which re-insurance may properly be effected by any Company of a part of its risks with another Company—but such re-insurance should be the exception, not the rule of its business. It is understood that Companies chartered in this country, as well as foreign Companies, are in the habit of issuing policies for amounts greatly in excess of the sums to be returned as the risk of such Company, and that relief is sought by re-insurance under some advantage supposed to justify the action, in Foreign Companies, not admitted to business in any one of the United States.

That any Company, for purposes of gain by reciprocity or otherwise, should expose itself to disproportionate and immense loss, is unwise, and calculated to bring itself into general discredit, seems plain, and it also seems plain that it is the duty of this State to protect its citizens, by enacting that no Company admitted in it, should be permitted to re-insure with any Company other than those which report to this State, and the condition of which may be known to the State authorities, and through them to all of its citizens.

The Companies admitted into this State, thus far, have treated its citizens fairly and promptly, and whenever they abandon the assuming of immense amounts of insurance, they will be received with more favor, and, very likely, increase their business.



## THE CONVENTION.

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At the invitation of the Hon. Geo. W. Miller, Superintendent of the Insurance Department of the State of New York, a Congress of the State Officials having supervision of the business of insurance in the respective States, has just been held in the City of New York. The movement met my most hearty concurrence, and the fact that it was attended by twenty-two of such officials, from nineteen different States, and that those of several other States who were unable to be present sent written communications to the Congress, proves the general interest felt by the State officers in the purposes and objects of the Convention.

The Congress convened May 24th, and continued in session ten days; after making considerable progress with the business introduced by its members, they adjourned on the 2d of June, to meet again at the same place on the 18th of October next.

A great number of able and important papers were, at the invitation of the Congress, submitted by different gentlemen connected with the various branches of Insurance, and these, with the various projects introduced by the several members of the Congress, received careful consideration.

The conclusions already reached give evidence of the breadth of the field surveyed and of the intelligence exhibited in the action already had, and also an assurance that it will accomplish most important service, at the next session, to the community, while relieving the Companies from annoying and weakening demands, and making the way of the State officers more satisfactory and less perplexing.

The conclusions arrived at thus far are, that deposits by Fire Insurance Companies in any State are calculated only to interfere with the best interests of the policy holders in all the States, and that critical and ample statements of their affairs, and the



supervision and examination into these affairs by the State officials, are better calculated than anything else, to secure the solidity of the Companies and the safety of the insured; that the true interests of the Companies and their customers require, that instead of each agent being constituted the Attorney of the Company to accept service of process in case of suit, there should be appointed by each Company in each State, some single individual for this purpose, and the probability is, that the superintendent or other State official, supervising the business of insurance in each State, will be selected for this purpose.

A common form for annual returns of Fire Insurance Companies, and another for Life Insurance Companies, was adopted. These may in some respects be modified, at the October session of the Congress, but the evident desire of all the members to secure all, and no more than all, of the facts necessary to present the actual condition of each Company, makes it clear that in this direction much has been accomplished.

The assembling of the Congress, and the hearty earnestness and unanimity of its discussions and actions, causes a feeling of surprise that such a Congress, in the action of which every citizen in the land has an interest, had never before been convened.

The Congress was composed of the following State Insurance officials, as appears by the record, as published:—

*New York.*—HON. GEO. W. MILLER, Superintendent of the Insurance Department of the State.

*Connecticut.*—HON. BENJAMIN NOYES, Commissioner of Insurance. HON. JOHN B. ROBERTSON, Assist'nt.

*Rhode Island.*—HON. JOEL M. SPENCER, Insurance Commissioner.

*New Hampshire.*—HON. OLIVER PILLSBURY, Insurance Commissioner.

*Maine.*—HON. ALBERT W. PAINE, Insurance Commissioner.

*New Jersey.*—HON. HENRY C. KELSEY, Secretary of State.

*Pennsylvania.*—J. M. FOSTER, Esq., for the Auditor General.

*Maryland.*—A. C. WAILES, Esq., Superintendent of Insurance.

*Kentucky*.—Hon. G. W. SMITH, Insurance Commissioner.

*Tennessee*.—Hon. T. A. ATCHISON, M. D., by Executive appointment.

*Illinois*.—Hon. GEO. M. BRINKERHOFF, Supt. of the Insurance Department, and Hon. WM. E. HARVEY, Actuary of Department.

*Indiana*.—Hon. W. W. CALDWELL, Deputy Auditor of the State.

*Missouri*.—Hon. C. E. KING, Deputy Superintendent Insurance Department.

*Nebraska*.—Hon. AUG. F. HARVY, Actuary for Auditor of the State.

*Kansas*.—Hon. W. C. WEBB, Superintendent of Insurance Department.

*Michigan*.—Hon. SAMUEL H. ROW, Commissioner of Insur'ce.

*Minnesota*.—Hon. A. R. MCGILL, Private Secr'y to Governor.

*Wisconsin*.—Hon. L. BREESE, Secretary of State and Insurance Commissioner.

*California*.—Hon. C. L. SKEELS, for the Commissioner of Insurance.

The above named gentlemen constituted the "Insurance Congress," or the Convention of "State Insurance Officials."

For the most part, the gentlemen were strangers—each viewed the other as his superior, and like modest, competent officials, deferred to each other the management of the Convention. Consequently, there was no management—no effort to control or direct—and, to the end, no disposition to dictate.

The Insurance Companies of the City of New York met the delegates with a frankness which was not only acceptable, but creditable to a metropolitan city, and, without intruding themselves upon the Convention, they actually became so far incorporated in the great work undertaken, that there was no difference in feeling, between delegates and Insurance representatives.

During the interval, the accomplished Secretary of the Convention, Henry S. Olcott, Esq., will publish all the doings of the Convention, including Reports of Committees, the able Communications of Messrs. Geo. T. Hope, F. S. Winston, The N. Y. Chamber of Commerce by A. A. Low, Esq., The Board of Fire Underwriters by Geo. W. Savage, Esq., Accident and Life Insurance Companies by Jas. G. Batterson, Esq., and Actuaries Bryant, (now connected with the Department at Albany, another evidence of the sagacity of Mr. Superintendent Miller), Homans, Harvey and others; so that the States and individuals will have full opportunity to examine the whole subject, and be prepared to unite in uniform legislation and State requirements.

## CARLISLE TABLE (JOSHUA MILNE.)

Age.	Living.	Dying.	Expectation.	Age.	Living.	Dying.	Expectation.
0	10,000	1,539	38.721	53	4,211	68	18.972
1	8,461	682	44.674	54	8,143	70	18.275
2	7,779	505	47.546	55	4,073	73	17.580
3	7,274	276	49.812	56	4,000	76	13.892
4	6,998	201	50.757	57	3,924	82	16.209
5	6,797	121	51.244	58	3,812	93	15.545
6	6,676	82	51.163	59	3,749	106	14.918
7	6,594	58	50.793	60	3,643	122	14.337
8	6,536	43	50.240	61	3,521	126	11.817
9	6,493	33	49.569	62	3,395	127	13.311
10	6,460	29	48.820	63	3,268	125	12.809
11	6,431	31	48.038	64	3,143	125	12.299
12	6,400	32	47.268	65	3,018	124	11.787
13	6,368	33	46.503	66	2,994	123	11.271
14	6,335	35	45.742	67	2,771	123	10.749
15	6,300	39	44.994	68	2,648	123	10.225
16	6,261	42	44.271	69	2,525	124	9.699
17	6,219	43	43.567	70	2,401	124	9.147
18	6,176	43	42.168	71	2,277	134	8.646
19	6,133	43	42.163	72	2,143	146	8.156
20	6,090	43	41.458	73	1,977	156	7.715
21	6,047	42	40.749	74	1,841	166	7.327
22	6,005	42	40.030	75	1,675	160	7.003
23	5,963	42	39.309	76	1,515	156	6.690
24	5,921	42	38.584	77	1,359	146	6.401
25	5,879	43	37.856	78	1,213	132	6.111
26	5,836	43	37.131	79	1,081	128	5.796
27	5,793	45	36.403	80	953	116	5.507
28	5,748	50	35.684	81	837	112	5.201
29	5,698	56	34.993	82	725	102	4.928
30	5,642	57	34,336	83	623	94	4.652
31	5,585	57	33,681	84	520	84	4.390
32	5,528	56	33,023	85	445	78	4.125
33	5,472	55	22,356	86	367	71	3.985
34	5,417	55	31,679	87	296	64	3.709
35	5,362	55	30,999	88	232	51	3.395
36	5,307	56	30,315	89	181	39	3.467
37	5,251	57	29,633	90	142	37	3.282
38	5,194	58	28,953	91	105	30	3.262
39	5,136	61	28,274	92	75	21	3.367
40	5,075	66	27,608	93	54	14	2.481
41	5,009	69	26,965	94	40	10	3.525
42	4,940	71	26,335	95	30	7	3.533
43	4,869	71	25,721	96	23	5	3.457
44	4,798	71	25,085	97	18	4	3.278
45	4,727	70	24,454	98	14	3	3.071
46	4,657	69	23,814	99	11	2	2.773
47	4,588	67	23,165	100	9	2	2.278
48	4,521	63	22,500	101	7	2	1.786
49	4,458	61	21,811	102	5	2	1.300
50	4,397	59	21,107	103	3	2	0.833
51	4,338	62	20,387	104	1	1	0.500
52	4,276	65	19,676				



## FARR'S ENGLISH TABLES, No. 3.—MALES.\*

Age.	Living.	Dying.	Expectation.	Age.	Living.	Dying.	Expectation.
0	511,745	83,719	39.91	55	209,539	5,145	16.45
1	428,026	27,521	46.65	56	204,395	5,282	15.86
2	400,505	14,216	48.83	57	189,114	5,428	15.26
3	386,290	9,213	49.61	58	193,686	5,584	14.68
4	377,077	7,719	49.81	59	188,102	5,752	14.10
5	370,358	5,033	49.71	60	182,350	5,929	13.53
6	363,325	3,953	49.39	61	176,421	6,118	12.96
7	361,372	3,310	48.92	62	170,303	6,314	12.41
8	358,062	2,734	48.37	63	163,989	6,515	11.87
9	355,328	2,297	47.74	64	157,474	6,720	11.34
10	353,031	1,983	47.05	65	150,754	6,921	10.82
11	351,048	1,776	46.31	66	143,833	7,115	10.32
12	349,272	1,666	45.54	67	136,718	7,297	9.83
13	347,606	1,637	44.76	68	129,421	7,458	9.36
14	345,969	1,679	43.97	69	121,963	7,593	8.90
15	344,290	1,781	43.18	70	114,370	7,695	8.45
16	342,509	1,928	42.40	71	106,675	7,756	8.03
17	340,581	2,112	41.64	72	98,919	7,770	7.62
18	338,469	2,320	40.90	73	91,144	7,733	7.22
19	336,149	2,541	40.17	74	83,416	7,639	6.85
20	333,608	2,764	39.48	75	75,777	7,483	6.49
21	330,844	2,801	38.80	76	68,294	7,268	6.15
22	328,043	2,836	38.13	77	61,026	6,990	5.82
23	325,207	2,868	37.46	78	54,036	6,655	5.51
24	322,339	2,897	36.79	79	47,381	6,266	5.21
25	319,442	2,926	36.12	80	41,115	5,832	4.93
26	316,516	2,954	35.44	81	35,283	5,361	4.66
27	313,562	2,981	34.77	82	29,922	4,862	4.41
28	310,581	3,009	34.10	83	25,060	4,349	4.17
29	307,572	3,038	33.43	84	20,711	3,834	3.95
30	304,534	3,068	32.76	85	16,877	3,328	3.73
31	301,466	3,100	32.09	86	13,549	2,840	3.53
32	298,366	3,134	31.42	87	10,709	2,384	3.34
33	295,232	3,171	30.74	88	8,325	1,965	3.16
34	292,061	3,211	30.07	89	6,360	1,590	3.00
35	288,850	3,254	29.40	90	4,770	1,260	2.84
36	285,506	3,300	28.73	91	3,510	979	2.69
37	282,296	3,352	28.06	92	2,531	744	2.55
38	278,944	3,406	27.39	93	1,787	553	2.41
39	275,538	3,465	26.72	94	1,234	401	2.29
40	272,073	3,529	26.06	95	833	285	2.17
41	268,544	3,596	25.39	96	548	196	2.06
42	264,948	3,668	24.73	97	352	132	1.95
43	261,280	3,746	24.07	98	220	86	1.85
44	257,534	3,826	23.41	99	134	55	1.76
45	253,708	3,912	22.76	100	79	33	1.68
46	249,796	4,001	22.11	101	46	21	
47	245,795	4,095	21.46	102	25	11	
48	241,700	4,192	20.82	103	14	7	
49	237,508	4,292	20.17	104	7	3	
50	233,216	4,395	19.54	105	4	2	
51	228,821	4,626	18.90	106	2	1	
52	224,195	4,758	18.28	107	1	1	
53	219,437	4,885	17.67	108	0	0	
54	214,552	5,013	17.06	109			

\* Dr. Farr's English Life, Males, No. 3, has recently been adopted by the Legislature of New York, as the basis of annual valuations of life policies by the New York Insurance Department—interest assumed at 5 per cent.

*Table showing the expectation of life at each age, as derived from Statistics of the towns of Northampton and Carlisle, England, and American Tables of mortality.\**

Age.	Northamp- ton.	Carlisle.	U. States.	Age.	Northamp- ton.	Carlisle.	U. States.
1	32.74	44.68		51	17.50	20.39	20.20
2	37.79	47.55		52	17.02	19.68	19.49
3	39.55	49.82		53	16.54	18.97	18.79
4	40.58	50.76		54	16.06	18.28	18.09
5	40.84	51.25		55	15.58	17.58	17.40
6	41.07	51.17		56	15.10	16.89	16.72
7	41.93	50.80		57	14.63	16.21	16.05
8	40.79	50.24		58	14.15	15.55	15.39
9	46.36	49.57		59	13.68	14.92	14.74
10	39.78	48.82	48.72	60	13.21	14.34	14.09
11	39.14	48.04	48.08	61	12.75	13.82	13.47
12	38.49	47.27	47.44	62	12.28	13.31	12.86
13	37.83	46.51	46.82	63	11.81	12.81	12.26
14	37.17	45.75	46.16	64	11.35	12.30	11.68
15	36.51	45.00	45.50	65	10.88	11.79	11.10
16	35.85	44.27	44.85	66	10.42	11.27	10.54
17	35.20	43.57	44.19	67	9.96	10.75	10.00
18	34.58	42.87	43.53	68	9.50	10.23	9.43
19	33.99	42.17	42.87	69	9.05	9.70	8.98
20	33.43	41.46	42.20	70	8.60	9.18	8.48
21	32.90	40.75	41.53	71	8.17	8.65	8.00
22	32.39	40.04	40.85	72	7.74	8.16	7.54
23	31.88	39.31	40.17	73	7.33	7.72	7.10
24	31.36	38.59	39.49	74	6.92	7.23	6.68
25	30.85	37.86	38.81	75	6.54	7.01	6.28
26	30.33	37.14	38.11	76	6.18	6.69	5.88
27	29.82	36.41	37.43	77	5.83	6.40	5.48
28	29.30	35.69	36.73	78	5.48	6.12	5.10
29	28.79	35.04	36.03	79	5.11	5.80	4.74
30	28.27	34.30	35.33	80	4.75	5.51	4.38
31	27.76	33.68	34.62	81	4.41	5.21	4.04
32	27.24	33.03	33.93	82	4.09	4.93	3.71
33	26.72	32.36	33.21	83	3.80	4.65	3.39
34	26.20	31.68	32.50	84	3.58	4.39	3.08
35	25.68	31.00	31.78	85	3.37	4.12	2.77
36	25.16	30.32	31.07	86	3.19	3.90	2.47
37	24.64	29.64	30.35	87	3.04	3.71	2.19
38	24.12	28.96	29.62	88	2.86	3.59	1.93
39	23.60	28.28	28.90	89	2.66	3.47	1.69
40	23.08	27.61	28.18	90	2.41	3.28	1.42
41	22.56	26.97	27.45	91	2.09	3.26	1.19
42	22.04	26.34	26.72	92	1.75	3.37	.98
43	21.54	25.71	25.99	93	1.37	3.48	.80
44	21.03	25.09	25.27	94	1.05	3.53	.64
45	20.52	24.46	24.54	95	.75	3.50	.50
46	20.02	23.82	23.80	96	.50	3.43	—
47	19.51	23.17	23.08	97	—	3.28	—
48	19.00	22.50	22.36	98	—	3.07	—
49	18.49	21.81	21.63	99	—	2.77	—
50	17.99	21.11	20.91	100	—	2.28	—

\* The United States Table, as prepared by Mr. Sheppard Homans.

*Table showing the present value of \$1.00, payable at the end of any of the years named, discounted at the rate of 5, 6, and 7 per cent. per annum.*

Years.	5 per cent.	6 per cent.	7 per cent.	Years.	5 per cent.	6 per cent.	7 per cent.
1	.95	.94	.93	26	.28	.21	.17
2	.90	.88	.87	27	.26	.20	.16
3	.86	.83	.81	28	.25	.19	.15
4	.82	.79	.76	29	.24	.18	.14
5	.78	.74	.71	30	.23	.17	.13
6	.74	.70	.66	31	.22	.16	.12
7	.71	.66	.62	32	.20	.15	.11
8	.67	.62	.58	33	.19	.14	.10
9	.64	.59	.54	34	.19	.13	.10
10	.61	.55	.50	35	.18	.13	.9
11	.58	.52	.47	36	.17	.12	.8
12	.55	.49	.44	37	.16	.11	.8
13	.53	.46	.41	38	.15	.10	.7
14	.50	.44	.38	39	.14	.10	.7
15	.48	.41	.36	40	.14	.9	.6
16	.45	.39	.33	41	.13	.9	.6
17	.43	.37	.31	42	.12	.8	.5
18	.41	.35	.29	43	.12	.8	.5
19	.39	.33	.27	44	.11	.7	.5
20	.37	.31	.25	45	.11	.7	.4
21	.35	.29	.24	46	.10	.6	.4
22	.34	.27	.22	47	.10	.6	.4
23	.32	.26	.21	48	.9	.6	.3
24	.31	.24	.19	49	.9	.5	.3
25	.29	.23	.18	50	.8	.5	.3

This table, to be strictly accurate, should be carried out in decimals, but as this is not practicable for the present purpose, the round cent is continued for several years.

The figures illustrate the effect of low rates of interest—for instance, \$1.00 discounted for one year at 5 per cent. interest, is worth \$.95, while \$1.00 discounted for one year at 7 per cent. interest, is worth but 93 cents.

*Table showing the amount of \$1,00 Principal, compounded for the years named, at the rate of 5, 6, and 7 cent. per annum.*

Years.	5 per cent.	6 per cent.	7 per cent.	Years.	5 per cent.	6 per cent.	7 per cent.
1	\$1.05	\$1.06	\$1.07	37	\$6.08	\$8.63	\$12.22
2	1.10	1.12	1.14	38	6.38	9.15	13.07
3	1.15	1.19	1.22	39	6.70	9.70	13.99
4	1.21	1.26	1.31	40	7.03	10.28	14.97
5	1.27	1.32	1.40	41	7.39	10.90	16.02
6	1.34	1.41	1.50	42	7.76	11.55	17.14
7	1.40	1.50	1.60	43	8.14	12.25	18.34
8	1.47	1.59	1.71	44	8.55	12.98	19.62
9	1.55	1.68	1.83	45	8.98	13.76	21.00
10	1.62	1.79	1.96	46	9.43	14.59	22.47
11	1.71	1.89	2.10	47	9.90	15.46	24.04
12	1.79	2.01	2.25	48	10.40	16.39	25.72
13	1.88	2.13	2.40	49	10.92	17.37	27.52
14	1.97	2.26	2.57	50	11.46	18.44	29.45
15	2.07	2.39	2.75	51	12.04	19.52	31.51
16	2.18	2.54	2.95	52	12.64	20.69	33.72
17	2.29	2.69	3.15	53	13.27	21.93	36.08
18	2.40	2.85	3.37	54	13.93	23.25	38.61
19	2.52	3.02	3.61	55	14.63	24.65	41.31
20	2.65	3.20	3.86	56	15.39	26.12	44.20
21	2.78	3.39	4.14	57	16.18	27.69	47.30
22	2.92	3.60	4.43	58	16.94	29.35	50.61
23	3.07	3.81	4.74	59	17.78	31.12	54.15
24	3.22	4.04	5.07	60	18.67	32.98	57.94
25	3.38	4.29	5.42	61	19.61	34.96	62.00
26	3.55	4.54	5.80	62	20.59	37.06	66.34
27	3.73	4.82	6.21	63	21.62	39.28	70.98
28	3.92	5.11	6.64	64	22.70	41.64	75.95
29	4.11	5.41	7.11	65	23.83	44.14	81.27
30	4.32	5.74	7.61	66	25.03	46.79	86.96
31	4.53	6.08	8.14	67	26.28	49.60	93.04
32	4.76	6.45	8.71	68	27.59	52.57	99.56
33	5.00	6.84	9.32	69	28.97	55.73	106.53
34	5.25	7.25	9.97	70	30.42	59.07	113.98
35	5.51	7.68	10.67	71	31.94	62.62	121.96
36	5.79	8.14	11.42	72	33.54	66.37	130.50



*Table showing the amount of \$1.00 per annum Principal, compounded annually for any number of years to 71, at the rate of 5, 6, and 7 per cent. per annum.*

Years.	5 per cent.	6 per cent.	7 per cent.	Years.	5 per cent.	6 per cent.	7 per cent.
1	\$1.00	\$1.00	\$1.00	37	101.62	\$127.36	\$160.33
2	2.05	2.06	2.07	38	107.70	135.90	172.56
3	3.15	3.18	3.21	39	114.09	145.05	185.64
4	4.31	4.37	4.43	40	120.79	154.76	199.63
5	5.52	5.63	5.75	41	127.83	165.04	214.60
6	6.80	6.97	7.15	42	135.23	175.95	230.63
7	8.14	8.39	8.65	43	142.99	187.50	247.77
8	9.54	9.89	10.25	44	151.14	199.75	266.12
9	11.02	11.64	11.97	45	159.70	212.74	285.74
10	12.57	13.18	13.81	46	168.63	226.50	306.75
11	14.20	14.97	15.78	47	178.11	241.09	329.22
12	15.91	16.86	17.88	48	188.02	256.56	353.27
13	17.71	18.88	20.14	49	198.42	272.95	379.00
14	19.59	21.00	22.55	50	209.34	290.33	406.22
15	21.57	23.27	25.12	51	220.81	308.75	435.98
16	23.65	25.67	27.88	52	232.85	328.28	467.50
17	25.84	28.21	30.84	53	245.49	348.97	501.23
18	28.13	30.90	33.99	54	258.77	370.91	537.31
19	30.53	33.75	37.37	55	270.71	394.17	575.92
20	33.06	36.78	40.90	56	287.34	418.82	617.24
21	35.71	40.00	44.86	57	304.71	444.95	661.45
22	38.50	43.39	49.00	58	318.85	472.64	708.75
23	41.42	46.99	53.43	59	336.79	502.00	759.36
24	44.50	50.81	58.17	60	353.78	533.28	813.52
25	47.72	54.86	63.24	61	372.26	566.11	871.46
26	51.11	59.15	66.87	62	391.87	601.08	933.46
27	54.65	63.70	74.48	63	412.46	638.40	999.81
28	58.40	68.52	80.69	64	434.09	677.43	1,070.79
29	62.32	73.63	87.34	65	456.97	719.08	1,146.75
30	66.43	79.05	94.46	66	480.63	763.22	1,228.02
31	70.76	84.80	102.07	67	505.66	810.02	1,314.98
32	75.29	90.88	110.21	68	531.95	859.62	1,408.08
33	80.06	97.34	118.93	69	559.55	912.20	1,507.60
34	85.06	104.18	128.25	70	588.52	967.93	1,614.13
35	90.32	111.43	138.33	71	618.95	1,027.00	2,728.12
36	96.83	119.12	148.91				

*Table Showing the Present Value of \$1.00 Principal per Annum, Discounted for any Number of Years, at the rate of 5, 6, and 7 per cent. Interest per Annum.*

Years.	5 per cent.	6 per cent.	7 per cent.	Years.	5 per cent.	6 per cent.	7 per cent.
1	.95	\$9.94	\$ .93	31	\$15.59	\$13.92	\$12.53
2	1.85	1.83	1.80	32	15.80	14.08	12.64
3	2.72	2.67	2.62	33	16.00	14.23	12.75
4	3.54	3.46	3.38	34	16.19	14.36	12.85
5	4.32	4.21	4.10	35	16.37	14.49	12.94
6	5.07	4.91	4.76	36	16.54	14.62	13.03
7	5.78	5.58	5.38	37	16.71	14.73	13.11
8	6.46	6.20	5.97	38	16.86	14.84	13.19
9	7.10	6.80	6.51	39	17.01	14.94	13.26
10	7.72	7.36	7.02	40	17.15	15.04	13.33
11	8.30	7.88	7.49	41	17.29	15.13	13.39
12	8.86	8.38	7.94	42	17.42	15.22	13.45
13	9.39	8.85	8.35	43	17.54	15.30	13.50
14	9.89	9.29	8.74	44	17.66	15.38	13.55
15	10.37	9.71	9.10	45	17.77	15.45	13.60
16	10.83	10.10	9.44	46	17.88	15.52	13.65
17	11.27	10.47	9.76	47	17.98	15.58	13.69
18	11.68	10.82	10.05	48	18.07	15.65	13.73
19	12.08	11.15	10.33	49	18.16	15.70	13.76
20	12.46	11.46	10.59	50	18.25	15.76	13.80
21	12.82	11.76	10.83	51	18.33	15.81	13.83
22	13.16	12.04	11.06	52	18.41	15.86	13.86
23	13.48	12.30	11.27	53	18.49	15.90	13.88
24	13.79	12.55	11.46	54	18.56	15.94	13.91
25	14.09	12.78	11.65	55	18.63	16.00	13.83
26	14.37	13.00	11.83	56	18.69	16.02	13.96
27	14.64	13.21	11.98	57	18.76	16.06	13.98
28	14.89	13.40	12.13	58	18.81	16.09	14.00
29	15.14	13.59	12.29	59	18.87	16.13	14.02
30	15.37	13.76	12.40	60	18.92	16.16	14.03

*Table of Interest at the rate of Six per cent. per Annum.*

IN DAYS.

\$1.00		\$2.00		\$3.00		\$4.00		\$5.00		\$6.00		\$7.00		\$8.00		\$9.00		\$10.00	
Days.	Int.	Days.	Int.	Days.	Int.	Days.	Int.	Days.	Int.	Days.	Int.	Days.	Int.	Days.	Int.	Days.	Int.	Days.	Int.
60	.01	30	.01	20	.01	15	.15	12	.01	10	.01	9	.01	8	.01	7	.01	6	.01
120	.02	60	.02	40	.02	30	.30	24	.02	20	.02	18	.02	15	.02	14	.02	12	.02
180	.03	90	.03	60	.03	56	.56	37	.03	30	.03	26	.03	23	.03	20	.03	18	.03
240	.04	120	.04	80	.04	60	.60	44	.04	40	.04	38	.04	30	.04	27	.04	24	.04
300	.05	150	.05	100	.05	74	.74	62	.05	50	.05	46	.05	38	.05	33	.05	38	.05

Table of Interest at the rate of Six per cent. per Annum,

IN MONTHS.

\$1.00		\$2.00		\$3.00		\$4.00		\$5.00		\$6.00		\$7.00		\$8.00		\$9.00		\$10.00		\$11.00	
Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.
1	0 $\frac{1}{2}$	1	1	1	1 $\frac{1}{2}$	1	2	1	2 $\frac{1}{2}$	1	3	1	3 $\frac{1}{2}$	1	4	1	4 $\frac{1}{2}$	1	5	1	5 $\frac{1}{2}$
2	1	2	2	2	3	2	4	2	5	2	6	2	7	2	8	2	9	2	10	2	11
3	2 $\frac{1}{2}$	3	3	3	4 $\frac{1}{2}$	3	6	3	7 $\frac{1}{2}$	3	9	3	10 $\frac{1}{2}$	3	12	3	13 $\frac{1}{2}$	3	15	3	16 $\frac{1}{2}$
4	2	4	4	4	6	4	8	4	10	4	12	4	14	4	16	4	18	4	20	4	22
5	2 $\frac{1}{2}$	5	5	5	7 $\frac{1}{2}$	5	10	5	12 $\frac{1}{2}$	5	15	5	17 $\frac{1}{2}$	5	20	5	22 $\frac{1}{2}$	5	25	5	27 $\frac{1}{2}$
6	3	6	6	6	9	6	12	6	15	6	18	6	21	6	24	6	27	6	30	6	33
7	3 $\frac{1}{2}$	7	7	7	10 $\frac{1}{2}$	7	14	7	17 $\frac{1}{2}$	7	21	7	24 $\frac{1}{2}$	7	28	7	31 $\frac{1}{2}$	7	35	7	38 $\frac{1}{2}$
8	4	8	8	8	12	8	16	8	20	8	24	8	28	8	32	8	36	8	40	8	44
9	4 $\frac{1}{2}$	9	9	9	13 $\frac{1}{2}$	9	18	9	22 $\frac{1}{2}$	9	27	9	31 $\frac{1}{2}$	9	36	9	40 $\frac{1}{2}$	9	45	9	49 $\frac{1}{2}$
10	5	10	10	10	15	10	20	10	25	10	30	10	35	10	40	10	45	10	50	10	55
11	5 $\frac{1}{2}$	11	11	11	16 $\frac{1}{2}$	11	22	11	27 $\frac{1}{2}$	11	33	11	38 $\frac{1}{2}$	11	44	11	49 $\frac{1}{2}$	11	55	11	60 $\frac{1}{2}$
12	6	12	12	12	18	12	24	12	30	12	36	12	42	12	48	12	54	12	60	12	66
24	12	24	24	24	36	24	48	24	60	24	72	24	84	24	96	24	1.08	24	1.20	24	1.32
26	18	26	36	36	54	36	72	36	90	36	1.08	36	1.26	36	1.44	36	1.62	36	1.80	36	1.98



*Table of Interest at the rate of Six per cent. per Annum.*

IN MONTHS.

\$12.00			\$13.00			\$14.00			\$15.00			\$16.00			\$17.00			\$18.00			\$19.00			\$20.00			\$25.00		
Mos.	Int.		Mos.	Int.		Mos.	Int.		Mos.	Int.		Mos.	Int.		Mos.	Int.		Mos.	Int.		Mos.	Int.		Mos.	Int.		Mos.	Int.	
1	6	6½	1	13	7½	1	7	7½	1	8½	8	1	8½	8½	1	9	9½	1	9	9½	1	10	10	1	10	10	1	12½	12½
2	12	13	2	26	15	2	14	15	2	17	16	2	17	17	2	18	19	2	18	19	2	20	20	2	20	20	2	26	26
3	18	19½	3	39	22½	3	21	22½	3	25½	24	3	25½	25½	3	27	28½	3	27	28½	3	30	30	3	30	30	3	37½	37½
4	24	26	4	52	30	4	28	30	4	34	32	4	34	34	4	36	38	4	36	38	4	40	40	4	40	40	4	50	50
5	30	32½	5	65	37½	5	35	37½	5	42½	40	5	42½	42½	5	45	47½	5	45	47½	5	50	50	5	50	50	5	62½	62½
6	36	39	6	78	45	6	42	45	6	51	48	6	51	51	6	54	57	6	54	57	6	60	60	6	60	60	6	75	75
7	42	45½	7	91	52½	7	49	52½	7	59½	56	7	59½	59½	7	63	66½	7	63	66½	7	70	70	7	70	70	7	87½	87½
8	48	52	8	104	60	8	56	60	8	68	64	8	68	68	8	72	76	8	72	76	8	80	80	8	80	80	8	100	100
9	54	58½	9	117	67½	9	63	67½	9	76½	72	9	76½	76½	9	81	85½	9	81	85½	9	90	90	9	90	90	9	112½	112½
10	60	65	10	130	75	10	70	75	10	85	80	10	85	85	10	90	95	10	90	95	10	100	100	10	100	100	10	125	125
11	66	71½	11	143	82½	11	77	82½	11	93½	88	11	93½	93½	11	99	104½	11	99	104½	11	110	110	11	110	110	11	137½	137½
12	72	78	12	156	90	12	84	90	12	102	96	12	102	102	12	108	114	12	108	114	12	120	120	12	120	120	12	150	150
24	1.44	1.56	24	2.88	1.80	24	1.68	1.80	24	2.04	1.92	24	2.04	2.04	24	2.16	2.28	24	2.16	2.28	24	2.40	2.40	24	2.40	2.40	24	3.00	3.00
36	2.16	2.34	36	4.26	2.70	36	2.52	2.70	36	3.06	2.89	36	3.06	3.06	36	3.24	3.42	36	3.24	3.42	36	3.60	3.60	36	3.60	3.60	36	4.50	4.50

*Table of Interest at the rate of Six per cent. per Annum,*

IN MONTHS.

\$50.00		\$100.00		\$200.00		\$300.00		\$400.00		\$500.00		\$600.00		\$700.00		\$800.00		\$900.00		\$1,000.00	
Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.	Mos.	Int.
1	25	1	.50	1	1.00	1	1.50	1	2.00	1	2.50	1	3.00	1	3.50	1	4.00	1	4.50	1	5.00
2	50	2	1.00	2	2.00	2	3.00	2	4.00	2	5.00	2	6.00	2	7.00	2	8.00	2	9.00	2	10.00
3	75	3	1.50	3	3.00	3	4.50	3	6.00	3	7.50	3	9.00	3	10.50	3	12.00	3	13.50	3	15.00
4	1.00	4	2.00	4	4.00	4	6.00	4	8.00	4	10.00	4	12.00	4	14.00	4	16.00	4	18.00	4	20.00
5	1.25	5	2.50	5	5.00	5	7.50	5	10.00	5	12.50	5	15.00	5	17.50	5	20.00	5	22.50	5	25.00
6	1.50	6	3.00	6	6.00	6	9.00	6	12.00	6	15.00	6	18.00	6	21.00	6	24.00	6	27.00	6	30.00
7	1.75	7	3.50	7	7.00	7	10.50	7	14.00	7	17.50	7	21.00	7	24.50	7	28.00	7	31.50	7	35.00
8	2.00	8	4.00	8	8.00	8	12.00	8	16.00	8	20.00	8	24.00	8	28.00	8	32.00	8	36.00	8	40.00
9	2.25	9	4.50	9	9.00	9	13.50	9	18.00	9	22.50	9	27.00	9	31.50	9	36.00	9	40.50	9	45.00
10	2.50	10	5.00	10	10.00	10	15.00	10	20.00	10	25.00	10	30.00	10	35.00	10	40.00	10	45.00	10	50.00
11	2.75	11	5.50	11	11.00	11	16.50	11	22.00	11	27.50	11	33.00	11	38.50	11	44.00	11	49.50	11	55.00
12	3.00	12	6.00	12	12.00	12	18.00	12	24.00	12	30.00	12	36.00	12	42.00	12	48.00	12	54.00	12	60.00
24	6.00	24	12.00	24	24.00	24	36.00	24	48.00	24	60.00	24	72.00	24	84.00	24	96.00	24	108.00	24	120.00
36	9.00	36	18.00	36	36.00	36	54.00	36	72.00	36	90.00	36	108.00	36	126.00	36	144.00	36	162.00	36	180.00

FIFTH REPORT  
OF THE  
COMMISSIONERS OF FISHERIES.

OF THE  
STATE OF CONNECTICUT,

1871.



HARTFORD:  
CASE, LOCKWOOD & BRAINARD, PRINTERS.  
1871.





## REPORT.

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*To His Excellency the Governor, and the General Assembly of the State of Connecticut :*

The Commissioners on Fisheries respectfully present their Fifth Annual Report :—

The past year has been one of marked progress in all that relates to the cultivation, restoration, and protection of fish. The most encouraging results have attended the efforts of all who have been engaged in the work. Of this there is abundant evidence in the recent legislation, and in the Annual Reports of the Fish Commissioners, of the various States. The interest in fish culture is spreading in all directions, and the subject at last is securing that attention which its vast importance demands. During the past year the attention of Congress has been drawn to the subject, and the first important action in the right direction has been secured by the following law :

“WHEREAS, It is asserted that the most valuable food-fishes of the coast and lakes of the United States are rapidly diminishing in number to the public injury and so as materially to effect the interests of trade and commerce ; therefore, be it

“*Resolved, etc.,* That the President be, and he hereby is, authorized and requested to appoint, by and with the advice and consent of the Senate, from among the civil officers or employees of the government, one person of proved scientific and practical acquaintance with the fishes of the coast, to be commissioner of fish and fisheries, to serve without additional salary.

“SEC. 2. That it shall be the duty of said commissioner to prosecute investigations and inquiries on the subject with a view of ascertaining whether any and what diminution in the number of food-fish of the coast and the lakes of the United States has taken place, and if so, to what causes the same is due, and also whether any and what protective, prohibitory, or precautionary measures should be adopted in the premises, and to report the same to Congress.

“SEC. 3. That the heads of the executive department be, and they are hereby directed, to cause to be rendered all necessary and practicable aid to the said commissioner in the prosecution of the investigations and inquiries aforesaid.

“SEC. 4. That it shall be lawful for said commissioner to take or cause to be taken at all times in the waters of the sea coast of the United States, where the tide ebbs and flows, and also in the waters of the lakes, such fish or specimens thereof as may in his judgment from time to time be needful or proper for the conduct of his duties as aforesaid, any law, custom or usage of any state to the contrary notwithstanding.”

The science of fish culture is still in its infancy ; but little comparatively is known of the nature and habits of the finny tribes ; and yet much that a few years ago was enveloped in obscurity has already been made plain through intelligent observation. Especially is this true of the most desirable of fresh water fish. As methods of breeding and cultivation become more extensively known, the waste waters of the country will be utilized, and every farmer and manufacturer who owns a pond or brook will find in it an unfailing supply of cheap and wholesome food, as well as abundant amusement.

#### BLACK BASS—*Grystes Fasciatus*.

At the date of this report most of the larger ponds of the State have been supplied with Black Bass. It was the design of your Commissioners to complete this part of their work during the past year, and to this end a contract was made with Mr. E. S. Woodford, of West Winsted, for a thousand fish to be delivered as needed. But the sudden death of Mr. Woodford from a disease contracted while distributing the fish,

prevented further fulfillment of the contract, and caused several applications to be neglected which otherwise would have received due attention.

In addition to the ponds named in former reports, the following have been stocked the past year :

Date.	Place.	No. of Fish.
July 6, 1870.	Bethlehem Pond, -	85
Aug. 12, "	Fountain Lake, Newtown, -	113
Aug. 27, "	Umpawaug Pond, Redding Ridge, -	120
Oct. 13, "	Loomis' Pond, East Lyme, -	66
Oct. 13, "	Lake's Pond, Waterford, -	67
Oct. 13, "	Gardner's Lake, Salem, -	71
Oct. 18, "	Moosup Pond, Plainfield, -	98
Oct. 18, "	Alexander's Pond, West Killingly, -	40
Oct. 18, "	Killingly Pond, -	30
Oct. 18, "	Chestnut Hill Reservoir, Killingly, -	30
Oct. 26, "	Woodstock Pond, -	46
Oct. 26, "	Black Pond, Woodstock, -	40
Total number distributed, -		806

A contract has been made with Rev. William Clift, by which a sufficient supply will be obtained during the coming summer to satisfy the applications now on hand for the following named ponds : Marshapaug Pond, in Tolland County, three ponds in Goshen, one in Meriden, one in Middlefield, and one in Danbury.

This fish seems to grow in favor as its qualities become better known. The delicate flavor of its flesh is a delight to the epicure as its gamy spirit is to the sportsman. They are hardy, easily transported, multiply rapidly, and grow at the rate of about a half a pound a year. They spawn in May ; their beds are made on sandy or gravelly bottoms in water from four to eight feet deep. The female is constantly hovering over and about her nest protecting her ova from destruction. The fry appear about the last of June, when they make for the shallows of the shore, where they may be seen for a couple of months, amid the pebbles and grass, darting



swiftly about near the surface of the water. They are about three-eighths of an inch long, and are distinctly marked with a black stripe across the tail. After the first year this mark disappears, and they assume the general character of the fish. For a very full and interesting account of this fish the reader is referred to a letter of S. T. Tisdale, Esq., of East Wareham, Mass., published in the "Albion," August 14, 1869. Mr. Tisdale was the first who introduced this fish into New England: on the 4th of July, 1850, he put twenty-seven live bass into Flax Pond, East Wareham, which he brought from Saratoga Lake. From these and two or three other lots brought from the same place, most of the black bass of New England have descended. It is reported that from Winsted Reservoir, where they were introduced about ten years ago, upwards of two thousand pounds were taken during the months of July and August last. From East Hampton Pond where they were first placed in 1865, the catch last year was estimated as high as six hundred pounds. They go into winter quarters in December, and remain torpid until spring. They seem to do well in all the ponds of our State where they have been introduced. After the orders now in hand for stocking ponds have been filled, the distribution of black bass by the Commissioners will cease. If any other ponds remain they can be stocked from neighboring ponds at trifling expense.

SHAD—*Alosa Praestabilis*.

In the month of July, 1867, Mr. Seth Green, of Mumford, N. Y., under the joint patronage of the Massachusetts and Connecticut Commissioners, made the first experiments in the artificial propagation of shad in the Connecticut River, a short distance below Holyoke dam. Mr. Green's skill and large experience in the culture of fish especially fitted him for the work. His first attempt resulted in hatching about two per cent. of the ova. His second attempt, with improved arrangements, brought out seventy per cent. His third effort secured ninety-nine per cent.; and in three weeks he put into



the Connecticut River about forty millions of young shad. At this time nothing was really known about the growth of the shad; there was a great difference of opinion among fishermen and naturalists; some asserted that it reached maturity, or marketable size, in one year; others, that it took from two to five years. The better opinion seemed to be not less than three nor more than five years: and this was partially corroborated by the investigations of Mr. M. S. Treat, of Eastford, which showed that alewives, which are closely allied to shad, take four years to mature. It was also corroborated by the time of the disappearance of shad, after the building of dams. In the fall of 1867, more young shad were observed at various places along the river from Glastonbury to its mouth, on their way to the Sound, than had been noticed for several years. The ferry boats on the river repeatedly scooped them up on their aprons, while many were caught by the fishermen in their fine meshed nets.

In the following summer, June 20, 1868, Mr. Green repeated his experiments in the hatching of shad at Holyoke, under the direction of the Massachusetts Commissioners, and for about twenty days had complete success. He turned out "several millions" of young fry daily. On the 12th of July, the weather became so extremely hot that the temperature of the water ranged from 84° to 88°, and the spawn was spoiled in the hatching boxes. It is estimated that sixty millions of young shad were put into the Connecticut that year.

During the same year attempts were made by the Connecticut Commissioners to hatch shad at Brockway's Point, but it was the 8th of July before the ova were placed in the boxes, and the extreme heat of the weather destroyed them.

No attempts were made to hatch shad in 1869, the Commissioners deeming it prudent to await the results of the experiments of 1867 and 1868, before incurring further expense. The great increase of young shad, seen in 1869, as in 1868, confirmed the belief that they would mature in due time and an abundance of merchantable shad would appear by the year 1871 at the farthest.

To the surprise and delight of our people, however, they

appeared in unusually great numbers in 1870. Such a run of shad had not been seen in twenty years. On Sunday, the 22d of May, they appeared in the Sound in vast numbers; captains of vessels sailing through the Sound, reported immense shoals of them near the surface of the water, all making for the mouth of the Connecticut River. On Monday morning, the 23d, over twenty-eight thousand shad, of good size, were taken from the pounds at and near Saybrook. The same day, at Lewis' pound, beyond Nuncatesick Point, *three thousand five hundred and sixty were taken at one time*, being seven times the usual catch. At Haddam Island, seven hundred were taken at one haul of the seine. At Wethersfield, nine hundred were taken during the day. At Holyoke dam, four hundred and fifty were taken between 4 and 5 o'clock in the afternoon. At all the other fishing places on the river, so far as heard from, the catches were unusually large, and the fishing continued uncommonly good throughout the season. The average quality and size of the fish were also good.\*

Now the largest hauls of shad in or near the Connecticut River, of which we have any authentic record, was in 1811, when *twenty-two hundred and eighty* shad were caught at a single draft at Rutty's Fish Place. Prior to that time, the largest single draft had been made in 1802, at Haddam Pier, and it numbered about *twenty-three hundred*. Comparing these figures with those given above, from Nuncatesick Pound, it will be seen that the single catch last year at that place was larger by nearly 60 per cent. than the largest single draft ever before recorded.

It cannot be positively asserted that this great run of shad was the result of the hatching of 1867. Your Commissioners entertain the belief that it was; and there are certainly plausible reasons for such belief. It is a remarkable coincidence that such a sudden increase should appear just at the time many had predicted it and looked for it. It is a pertinent fact, too, that no other river shared in this abundance: the

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\* May 18, 1871. Since the above was in type, reports have reached us that the fishing in the river is better than it was last year. Last week three thousand shad were caught at a single draft of the seine at Essex; and this week nine hundred were caught at one draft above Middletown.



supply elsewhere was as scanty as in former years. Indeed it is only because this is the *first* attempt ever made to cultivate *shad*, that any doubt about these results would be entertained.

With salmon the experiments have been repeatedly tried, under a variety of conditions, in France, England, Scotland, Ireland and Canada, and with uniform success. Salmon is a far more difficult fish to cultivate than the shad; but when hatched artificially and put into the river to go to the sea, it is sure to return. Why, then, should not the artificially hatched shad return? Indeed, why was not this a return of the fry of 1857? Your Commissioners *repeat* that they believe it was; and acting upon this belief, they deemed it their duty to continue the work of hatching at Holyoke. They employed Mr. James Rankin to attend the hatching boxes, and during the short period of seventeen days, from June 20 to July 7, there were hatched and put into the Connecticut over fifty-four millions of young fry. Acknowledgments are due to the Massachusetts Fish Commissioners for their kind permission to catch shad within their State, out of season, and for the free use of their State hatching boxes. Like consent having been given for the coming summer, the hatching will be repeated by your Commissioners. It is their design, too, to make attempts to increase the shad in other rivers, by hatching ova in their waters or transporting the fry from the Connecticut. Many persons, however, have expressed a desire to make such experiments at their own expense, and as inquiries have been made about the methods to be observed, the following explanations will, it is believed, prove useful as well as interesting.

The hatching ground at Holyoke is on the east side of the river, about three-fourths of a mile below the dam, near an old fishing place. The seine was usually hauled three times a night—at half past nine, half past ten, and half past eleven o'clock. Only a few fish were hauled at a time. There was about one female to four males. Immediately upon being taken from the net, the fish were placed in a tub (of water dipped fresh from the river), and held carefully in the water

while the operator passed his hand, with gentle pressure, along the abdomen towards the tail, forcing the spawn into the water. If it does not come with gentle pressure the fish is not ripe, and another is put in its place. When all the females have been thus stripped, the males are taken and served in the same way; the largest and most vigorous being selected for the purpose. One male will suffice for ten females; but where there is an abundance of males, as is usually the case, it is best not to be sparing of the milt. By this process the ova are all fecundated. They are then removed to the hatching boxes in the river. These boxes are made of inch pine boards; they are two feet long, eighteen inches wide, and twelve inches deep, with wire gauze bottoms, twelve meshes to the inch. An inch pine strip two inches thick, three inches wide, and three feet four inches long, is fastened on each long side, about midway between the top and bottom, at a slight angle with the line of the bottom, to float the box at the right depth and to give it a slight inclination down stream. So that the current striking the bottom will be turned up into the box. The boxes are placed a short distance from the shore in water about three feet deep, where the flow is constant and pure. They are strung together in a line, and held in place about eighteen inches apart by means of cords running along and fastened to the strips on each side. The current gives the boxes a gentle rocking motion which keeps the eggs in constant agitation. In about twenty-four hours, if the egg has been impregnated, life, or movement, is seen in the egg, with the aid of an ordinary magnifying glass. If the egg has not been impregnated it changes color and should be immediately removed. So rapidly does the process of incubation proceed that in the short period of from forty-eight to sixty hours, varying with the temperature of the water and atmosphere, the little fellow, with a few spasmodic jerks thrusts his tail and head through the shell and ceases not to wriggle until he finds himself entirely divested of its fragments and swimming free in his native element. They have so small an umbilical sac that they can be kept in the hatching box only a day or two,



according to the temperature of the water and air. They are let out at midnight, when they immediately make for deep water, where other kinds of fish of their size dare not go and where larger fish cannot see them.

Of the shad taken last summer about nine-tenths of the females were not ripe. The second haul of the evening generally afforded the most ripe fish. At times the hatching boxes were exposed to violent storms—the waves breaking over them and tossing their contents about; but no injury was done to the ova. It was found that the spawn taken from the female an hour after its death would hatch. The percentage of loss of ova in process of hatching, was so small as to be inappreciable. In the line of boxes that were ranged nearest the shore (there were three lines), the spawn hatched six hours sooner than those in the line ranged farthest from the shore, where the water was three degrees colder. As the weather grew warmer, it was found that the process of hatching was hastened. Increased motion of the boxes seemed to produce a like result. The coarser the mesh of wire on the bottom of the box the better, so long as it will retain the ova. During the period of hatching there were several violent thunder storms, but no harm followed. Success depends mainly upon three things: perfect impregnation, constant motion of the ova, and freedom from mud and sediment. The ova from half spent shad are always small, and they take longer time to hatch than do the ova from unspent fish. Where the current is not rapid, a strip about two inches wide and an inch thick, with bevelled edge, may be nailed across the bottom of the box about midway from the end: this will serve to catch more water and turn it up into the box.



## FRESH WATER SALMON.

This is the name applied to a variety of salmon caught in the Schoodic Lake Region of the St. Croix River, principally in Grand Lake, in the southeastern part of the State of Maine. There it is commonly known as the SCHOODIC SALMON. It is also caught of somewhat larger size in Reed's Lake and Sebago Lake, in the southwestern part of the same State, where it is commonly known as the SEBAGO SALMON. These fish are also known as the "land-locked" salmon, the "dwarfed" salmon, and also by the name we have placed at the head of this division of our Report. Strictly speaking they are not all land-locked, neither are they all dwarfed. They never leave fresh water, but alternate between their feeding grounds in the deep waters of the lakes and their spawning beds in the shallows of the tributary streams. They are so like the true salmon (*Salmo Salar*) in all essential characteristics, that many ichthyologists claim that there is no real difference between them. In size and general external appearance they resemble the grilse more completely than the mature salmon. The scales of both are ellipsoid. As respects the skeleton, the texture and color of the flesh, the location and number of the fins, and the number of fin-rays, they are identical, varying only in the number of anal and dorsal fin-rays, to which ichthyologists pay little or no attention, as they are found not to be constant in the true salmon. Both species spawn about the same time in the shallows of fresh water streams. The period of incubation is the same. The color of the fry is about the same, that of the true salmon being perhaps a trifle darker. The chief difference is in size, and it is not unreasonable to attribute this to difference in feeding grounds, those of the sea affording more abundant nourishing food. Those from Sebago Lake average about five pounds for the males and three pounds for the females, though some have been known to weigh as high as seventeen and a half pounds. Those from



the St. Croix region average about one and a half pounds, and rarely or never exceed four and a half. For food and sport, both of these fresh water fish are second only to the salmon, and few other fish can be named which would prove more acceptable to the people of this State. Efforts have, therefore, been made the past year to introduce them into such waters as seemed best suited to their nature and habits. This is only an experiment ; but there is good reason to believe that it will be successful.

The ova were obtained from the Grand Lake River, a short stream only three miles long, connecting Grand Lake with Big Lake. They were obtained through the Poquonnock Fish Company, under a contract made with the Commissioners. David Dresser of Princeton, Me., was employed to catch and pound the fish. Efforts to take the fish with the seine, resulted in catching only six fish. Resort was then had to the fly, and between October 1 and November 5, when they ceased to bite, over seven hundred fish were caught. They were immediately placed in pounds formed of netting drawn over parts of the stream, and there kept until ripe for stripping. By some accident to the netting, a large number of those caught were lost—and many were destroyed, particularly gravid females, by foxes and owls. The weight of the fish varied from one and a half to four pounds each—the males being about a half a pound heavier than the females. About 256 males and 300 females were stripped. The first ova were taken November 5th—and stripping continued every day after, until November 25th. Each female produced on an average about 540 eggs. The whole number obtained was about 162,000—a large number of which proved to be unimpregnated. This was attributed to the want of suitable enclosures where the fish could be readily observed, and the moment of ripeness detected. The selection of females for stripping was necessarily a kind of guess work, liable to great error. As it was, however, the larger proportion of ova were well fecundated. The first lot of 18,000, partially developed, were sent to the Poquonnock Co's hatching house, on the 23d of November,



1870. They were packed with moss in small tin boxes, which were packed with sawdust in large tin pails, that were in turn packed with sawdust in wooden cases. They arrived on the 22d of November; about two-thirds of the whole in good condition. The second lot of 90,000, more advanced than the first lot, was sent away January 7, 1871, and reached the hatching house January 14th—not quite half of them in good condition. Of the eggs lost, only a very few showed their eyes; the rest of them were obviously infertile. Twenty thousand of these ova were put into the hatching boxes for the State—from which were obtained nine thousand healthy fry. Of the still larger number retained by the Company for their own use, about ten thousand were hatched. Of the 51,500 left at Grand Lake, under Mr. Dresser's care, for the State of Maine, 16,591 were hatched and returned to their native waters. Of this lot left at Grand Lake, 13,000 were taken from 12 large females on the 25th Nov., which proved to be ripe, and to be nearly all well impregnated. Hence the difference in results. From this it will be seen that about 2-9 of all the ova taken, produce young fish. At Grand Lake the first fry appeared February 15th, and the last March 29th. Not twenty were lost in which life had appeared. They were about 5-16 of an inch long when they emerged from the egg. Mr. Dresser says he could not distinguish them from the true salmon fry. When distributed in March and April, they had nearly absorbed their yolk sac, and had grown to about 15 times their original bulk.

At the Poquonnock hatching house, the first fry appeared February 1st, and the last March 15th; very few ova were lost in which life had appeared. The young fry were about 3-4 of an inch long. Rev. Mr. Clift says that they were a little lighter in color than the true salmon fry. Eight hundred of the Company's fry were distributed in Broad Brook April 21st, 1871. The yolk sac was nearly absorbed, and they were in excellent condition—there was no loss from transportation. They were carried in a tin can holding about three gallons of cold water.

Those belonging to the State have been distributed as follows :

Rogers' Pond, New London County.  
 Snipsic Lake, Tolland County.  
 Spectacle Pond, Litchfield County.  
 East Hampton Pond, Middlesex County.  
 Farmington River, Hartford County.  
 Alexander's Lake, Windham County.  
 Birmingham Pond, New Haven County.  
 Naugatuck River, New Haven County.  
 Quinnebaug River, Windham County.

From this list it will be seen that most every county in the State has had its quota, and the experiment will be tried under a variety of conditions. It is recommended that all the ponds and rivers into which these valuable fish have been introduced, be protected by the most stringent legislation for a period of at least five years. By the expiration of that time, it is believed that the fish will have increased to such an extent as to meet the reasonable demands of all—whether for food or for sport.

#### SALMO SALAR.

But it is the true Salmon that, above all other fish, your Commissioners desire to restore to our waters. To this end the various rivers of the State have been inspected, and although obstructions abound, it is yet believed that at an early day a passage will be opened for the fish through most, if not all, of them. The first river to which all naturally turn, is the Connecticut. The chief dam on this river is at Holyoke, and it still remains without a fishway ; although the Commissioners of Massachusetts have done everything in their power to compel the Holyoke Company to build it. The suit, which has been so long pending between the Company and the State of Massachusetts, has, during the last year, been tried and has resulted in a decision of the highest court of the State against the Company. The suit was

brought by the Fish Commissioners to compel the Company to build a fish-way at its own expense, according to certain plans and specifications provided by the Commissioners according to law. We quote from the first page of the Massachusetts Commissioners Report for 1871 :

“ The case of the Commonwealth *versus* the Holyoke Water Power Company, has recently been decided in favor of the Complainants, by the Supreme Court. A great variety of argument was brought to bear, especially on the part of the respondents, but the central point may thus be set forth. 1. Dam owners are required by common law to maintain fish-ways. 2. The Holyoke Company was required by its charter to pay for the fish rights injured above its dam ; and *therefore*, the Company claimed by implication an exemption from a fishway. 3. But in chartered rights, the presumption is against the grantees, and nothing is held by them which is not expressly granted. 4. But no implication can free the Company from the common-law obligation to build a fish-way. This decision, if confirmed by the United States Supreme Court, to which the case has been appealed, will save the State an outlay of at least \$25,000. For several years, and against much doubt and discouragement, the Commissioners have held that this Company was sheltering itself behind an erroneous construction of its charter ; and now our highest tribunal has confirmed this opinion. It is but fair to add that the Turners Falls Company, the next great dam on the river above, has shown an excellent spirit, and has offered to put up a suitable fish-way, even in advance of the requirements of the law.”

In consequence of this condition of the Connecticut, attention has been turned to other prominent rivers, and during the past year Messrs. Hudson and Pike have made thorough exploration of the Quinnebaug, the Shetucket, and the Farmington rivers. They are all found to abound in long reaches of excellent spawning grounds for salmon. On the Farmington River, inspection was made as far as the north limit of the State, and the following dams were noted :



1. Poquonock—dam about 254 feet long and 5 feet high.
2. Poquonock—dam 250 feet long and 10 feet high.
3. Rainbow—dam 250 feet long and 12 feet high.
4. Spoonville—dam 250 feet long and 7 feet high.
5. Spoonville—dam 100 feet long and 5 feet high.
6. Tariffville—dam 150 feet long and 4 feet high.
7. Tariffville—dam 150 feet long and 2 feet high.
8. Unionville—dam 150 feet long and 6 feet high.
9. Collinsville—dam 150 feet long and 15 feet high.
10. New Hartford—dam 600 feet long and 6 feet high.
11. New Hartford—dam 150 feet long and 22 feet high.
12. New Hartford—"Young's" dam, 150 feet long and 4 feet high.
13. Kingston—"Steven's" dam, 150 feet long and 6 feet high.
14. Kingston—dam 100 feet long and 4 feet high.
15. Colebrook—dam 150 feet long and 5 feet high.

It is believed that if fish-ways are built over these dams, only as far up as Tariffville, sufficient spawning ground will be secured, at least for experiment. This would open Salmon Brook and numerous other tributaries for miles along the river, above and below. One dam at Poquonock and one at Rainbow are the highest to surmount; but these are only about half as high as the dam across the Housatonic at Birmingham, the fish-way over which is hereinafter described. There is nothing at either of these dams which would make a fish-way impracticable or expensive. The other dams are so low that fish-ways may be built at a trifling cost.

On the Quinnebaug and Shetucket, the obstructions are not so formidable, while the spawning grounds, which may be reached by building fish-ways at Greenville, Wauregan, and Danielsonville, would be probably unsurpassed by any other waters in the State. The dam at Greenville on the Shetucket, is the largest of the three. It is about 12 feet high, and is about a mile below the junction of the Shetucket and Quinnebaug rivers. A fishway here, which cannot be very expensive, will open the way to both these rivers. Along the Quinnebaug, from its mouth, as far up as Wauregan, a dis-



tance of about 15 miles, there is no obstruction whatever. The dam at Wauregan is about 22 feet high. The rock forming the bed of the river below the dam gradually slopes from the dam and affords an excellent site for a fish-way, which can be built at slight expense. Above Wauregan is Danielsonville dam, about 15 feet high. The channel here and the banks of the river in the neighborhood of the dam, present advantages that will permit a fish-way to be built with little trouble and cost. Thus one of the finest streams for salmon breeding in the State will be accessible to the fish. Salmon used to abound here, and have been taken here within the last 50 years. Many small brooks find their way into the river; especially Broad Brook, which rises in North Stonington and runs through Preston. Ample spawning grounds abound; pure spring water flows over gravelly and rocky bottoms, affording the most desirable conditions for spawning and nurturing the young fry until ready to migrate to the sea.

True salmon are extinct in the rivers of Connecticut, and most of the rivers of the other New England States. There are but few in New Hampshire. It is to Maine and Canada chiefly that the New England Commissioners must look for the supplies necessary for colonizing the salmon in our now vacant rivers. The places in Maine where the true salmon are found in greatest numbers, that is, where they congregate for spawning, are so remote and secluded, so difficult of access, that the trouble and expense of establishing ponds for stripping and houses for hatching, would be rather too great to be borne by any one State alone. Influenced by these and other considerations, the Commissioners of the several New England States called a convention at Boston last month, at which it was agreed that they would unite together in an experiment to procure ova in Maine, under the superintendence of Mr. Atkins, the Maine Commissioner; the expense to be borne by the several States, in proportion to the share of the ova ordered. The result, if successful, will doubtless be that the cost of ova in future will be trifling compared with the prices demanded in Canada. More than this, there are no salmon in the world superior to those of Maine.

Already many salmon fry have been put into the tributaries of the Connecticut. In the spring of 1869, the Commissioners of Vermont put two thousand into West River near Brattleboro, and in the spring of 1870, thirty thousand more into Williams River near Bellows Falls. Two thousand ova, from the Miramichi, were laid down last fall in the hatching house at Poquonock; and this Spring eighteen hundred and seventy-six fry were hatched from them. They were placed without accident or loss from transportation into the waters and tributaries of Broad Brook, which is a branch of the Quinnebaug, April 21, 1871.

Your Commissioners in March bought ten thousand eggs of Mr. Wilmot of Newcastle, Canada, which were so far advanced in development as to show the outline of the fish with its prominent embryonic eyes. They reached the hatching house of the Poquonock Company about the 11th of March. Upon removing them from the packing boxes, upwards of seven thousand were found to be spoiled through defective packing. Upon notifying Mr. Wilmot, he immediately sent four thousand four hundred more, which came in good order. Of the seven thousand four hundred healthy ova placed in the hatching troughs, about six thousand fry have been hatched, and are at this time (May 1) doing well. As soon as the umbilical sac is nearly absorbed these fry will be scattered through the smaller streams that empty into the Housatonic, Farmington, Shetucket, and Quinnebaug Rivers, above and below the dams, in such places as may appear best suited to their safety and growth. There they will remain, one portion of them about eighteen months, the other portion about thirty months. Those of the former that may be so fortunate as to escape the vicissitudes which always surround the life of all young fish, will go to the sea in the fall of 1872; those of the latter in the fall of 1873. Each lot would return as grilse in about six months after its departure. The males, fertile; the females, infertile. In the fall they will leave again, and return the following spring (1875) as mature salmon, ready to produce ova. If any of the two thousand survived that were placed in the tributaries of the Con-

necticut by the Vermont Commissioners in the spring of 1869, some of them doubtless migrated last fall, and their return may be looked for this spring as grilse; and many more next spring from the ten thousand introduced in the spring of 1870. It is proposed to introduce fry every year until 1875 or 1876, by which time, if our fish-ways prove effectual, as no doubt they will, it is certain that the true salmon will be permanently colonized in the rivers of our State. Your Commissioners make this assertion without hesitation or qualification. For it has been repeatedly demonstrated that with fishways, salmon can be introduced and made to abound, not only in old salmon rivers, but even in streams where they have never before been known. Abundant evidence of the utility of fish-ways has already been given in previous reports; but your Commissioners cannot refrain from citing facts of more recent experience, as given in the reports of the Commissioners of Maine and Massachusetts, and particularly of the Fisheries Department of Canada.

Mr. Atkins, in his last Report for 1870, says (page 1), in regard to the fish-ways of Maine: "The period of preliminary examination has ended; and the period of experiment is drawing to a close. The past season has seen the fish-ways built by direction of the Commissioner for the first time subjected to the test of actual use.

"Although the conviction that the fish-ways would be successful almost amounted to moral certainty, there could be but a feeling of anxiety, lest among the many conditions to be considered in the location and form of them, there might have been some unthought-of difficulty that would destroy their usefulness. It is, therefore, with a feeling of relief that I am able to report the entire success of all the fish-ways built in accordance with the Commissioners' plans that have been tested. Among them may be mentioned the fish-way at Union Mills on the St. Croix; several on the Pemmaquan River in Pembroke, and at Warren. In all these, fish ascended in numbers that delighted the public and astonished the incredulous." The Massachusetts Report, page 4, says



of fishways on the Mystic: "Their success is all that could be desired." In the Appendices of the Report of the Fisheries Department of Canada for 1869, the facts are embarrassing only through their abundance. We cite from page 57, St. Francis Division: "Mr. Welles reports salmon on the increase, and of larger growth than usual. They have returned to and spawned in the Eaton River, once famous for them, but where they had been of late years utterly exterminated, none having been seen there for thirty years. The fish-way erected on the mill-dam at the mouth of the river doubtless admitted of their ascent." Page 58, Chateauguay Division, Mr. McFarlan says: "After some trouble and opposition there are now nine fish-ways built in the Chateauguay River between its mouth and its source. A marked increase of fish is reported in this section." Page 75: "The fish-way placed in Derry's River at Miners Mills has been found effective, and last spring large numbers of alewives ascended to the old spawning places." Page 76: "Fish-ways have been erected in the dams of the Petitcodiac and its tributaries, Coverdale and Pollet Rivers, and Mr. Allen, the overseer of Abbot Company, reports quite a number of salmon passed through last fall."

Page 79: "I report a gradual improvement. The fish-ways placed in the Mecoxneckie and Eel River dams are found to work well, and have opened these rivers to the ascent of salmon and gaspereaux." Page 81: "Salmon and alewives are passing up streams where they have not been seen for years, and there is scarcely a mill-dam of any importance in the Province (Nova Scotia), that is not provided with a good ladder." Page 82: "The River Hebert many years ago was a salmon river, but owing to a dam at the head of the tide it has been entirely destroyed as such; I had a fish-way put into the dam, and the owner told me that he had the pleasure of seeing salmon going over it." Page 83: "On the Grand Branch the Messrs. Gateslan kindly erected a fish-pass which has proved eminently successful." Page 89: "On the Clyox River we have had three good fish ladders erected; also three on the Shelburne, and one each on the



Jordan and Sable River, up which fish have ascended and been seen where they have not been known to be for many years previously." From the report for 1870, just published, we cite page 262: "It is calculated that over four hundred salmon went up the river (Melane). Indians report having seen twenty and thirty at a time even thirty miles up stream. This is sufficient to establish the efficiency of the fishway built there by the Department." Page 264, Pabro Division: "Salmon fishing, which was exceedingly good in 1869, has been still more successful this season. The fish-pass was kept clean and in efficient order." Page 269, St. Francis Division (above mentioned): "Salmon are reported to be steadily on the increase in many of the rivers in the district from which they had been almost exterminated. The fishways at Government dam, at St. Ours, being now completed, the fish ascend the Richelieu easily."

Page 285, Overseer Curran Reports: "I have the pleasure to inform you that the fish-ways on the St. Croix River are a complete success, and large numbers of salmon and alewives have passed up during the season." Page 287, Overseer Alcorn, already cited above from Report of 1869, says: "I find salmon increasing rapidly. They have appeared in Meclatchy's Creek, in Upper Hillsborough, in Crooked Creek, in Harvey and Germantown Lakes, and in Hopewell. In Salmon River they have become plentiful, and a large number have been taken in shad weirs off the mouth. In Westmoreland County the opening of Shediak River, by cutting a passage for fish through the dam known as "Gilbert's Mill," has proved very beneficial, and Overseer Deacon reports that a large number of salmon have been seen many miles up the river on spawning ground, where salmon have not been seen for many years." Says the fishery officer of Nova Scotia, page 292: "With reference to the island fisheries, I am happy to be able to report most satisfactory progress in almost every respect, as will be fully seen by reference to the reports of the local officers. The fish ladder adopted by the department is working admirably where properly constructed; and *over one hundred of them* have been put in the various dams in

the Province. \* \* \* The coast and bays are again alive with young fish.

Page 294.—“The Annapolis river has been visited by an increased number of salmon, which went through the ladder at Gates’ Mills in quantities sufficient to gratify any lover of protection.” Page 295.—“At Salmon river, where the fishing had been well nigh destroyed, there has been since the erection of fish ladders in the mill dams, and the careful observance of the regulations, a very great improvement.” Page 296.—“There has been a ladder built in the dam across the Checoggin river, which works well, as quantities of fish were seen going up, and large numbers of young fish returned to sea this fall.”

Page 298. “The obstructions at the mouth of the Musquodolit have all been removed, and large numbers of salmon have gone up the river this fall.” We might cite many more reports of a similar character. No one can read these Canadian reports without being struck with the remarkable coincidence of reports throughout the whole country. To fishways unquestionably these gratifying results are mainly due. Yet it must be also stated that the laws regulating the modes and times of fishing are very comprehensive and wise, and are enforced with unflagging energy by wardens especially appointed for the purpose.

The most remarkable individual success in the breeding and cultivation of salmon is that of S. Wilmot, Esq., at Wilmot’s Creek, at Newcastle, Ontario. In the fall of 1866, he commenced with half a dozen salmon, the only remnant of those that escaped extermination in the Creek. From this slender stock he obtained about 1,500 ova, which he placed in his hatching house. The fry obtained were nurtured a proper time and placed in the stream. He repeated annually the operation of securing all the ova he could get from returning salmon. In 1870 the number had increased so that 300 salmon and grilse could be seen at one view in his reception house. It was filled literally to overflowing. Over and above the fish in the building it was believed by many that there was a still greater number in the stream be-



low. In 1870, one hundred and fifty thousand young fry were let loose from this establishment. Upwards of 300,000 ova were hatched the past winter—from which your Commissioners obtained the supply heretofore mentioned. Mr. Wilmot claims these salmon to be the “giants of their race.” He says in November last ninety-six salmon were in the reception house at one time, and seventy-nine of them measured between 35 and 40 inches in length. In good condition they would have weighed between 30 and 40 pounds each. Though terribly out of condition, just in the spawning season, some of them weighed 17 and 18 pounds.

With a view to the intelligent performance of their duties, your Commissioners have examined many fish-ways and have otherwise thoroughly investigated the subject. The most successful are doubtless those which are known in this country as “Fosters.” They were invented by Mr. James Smith of Deanstone, Scotland, many years ago. The fishway at Birmingham, just completed, over the Ousatonic Water Power Company’s dam, is built on this plan. As it is the first fishway of any note yet built in our State, and as it is built on the most approved plan, it has been deemed worthy of a full and particular description in this report. It was planned in 1864 by the late N. W. Foster, Esq., at the time one of the Fish Commissioners of Maine. It was built at the expense of the Ousatonic Water Power Company, pursuant to the requirements of its charter. The whole work has been done in a most substantial manner and reflects great credit upon the officers and agents of the Company. The dam extends across the river just above the village of Derby. Its extreme length is 750 feet ; its height 22 feet. The fish-way is on the west side of the river, placed *within* the West Canal. It runs down the inner side of the east wall of the canal. The crest of this east wall is one foot lower than the crest of the dam, and the surplus water passes over it into the river. The extreme length of the fish-way is two hundred feet. From the upper end it extends down in a straight course for about 180 feet ; thence turning at right angles it extends about 20 feet more into the river. The ascent is a trifle less than one foot

in twelve. The depth inside is three feet nine inches. It is divided into 22 pools, each of which is 8 feet wide and 9 feet long in the clear. The bulk-heads or partitions separating one part from another, are placed at an angle of  $60^\circ$  with the sides, and a clear space of 24 inches is left between the end of the bulk-head and the side of the fish-way, for the free flow of the water. The average depth of water ponded is about 18 inches. The water enters the top of the fish-way through an aperture 18 inches wide by 30 inches high, cut on its west side, through the heavy masonry near the eastern head-gate wall. Its lower line or sill is about 4 feet below the crest of the dam. It is closed by a small sliding gate, opened and adjusted to any height by means of an iron rod attached to its top and extending up through the masonry to the top of the wall. The upper drawing in Figure III. is a side elevation of the fish-way; *b.* is a heavy timber pier; *c. c. c. c.* are solid masonry piers, upon which the structure stands, and to which it is fastened by heavy iron bolts. The lower drawing in Figure III. represents the bottom of the fish-way, the portion from E F to C D showing the floor with the position and angle of the bulk-head; the portion from C D to A B showing the floor beams (the plank removed) resting upon the piers *c c c c*, 4 by 8 feet square, built upon a natural rock foundation. For convenience of representation the lower end of the fishway is shown as removed from its connection with the upper portion. A B, A' B', A'' B'', and K, mark parts that are contiguous to each other. The floor beams and side frames are of 6 inch stuff, the floors of 3 inch plank, the sides and the bulk-heads of 2 inch plank. Figure I. represents the relative position of the dam and fish-way. The parts are described in the drawing. Figure II. represents the fishway-inlet on a large scale. The fishway cost the Company about \$1,900.

The water flows through with a gentle current, debouching several feet into the deep water of the channel. Since this fishway was planned and its site selected, an unprecedented freshet broke the dam away, and changed to some extent the channel of the river below, turning more water than formerly into the East channel. The effect of this upon the fishway



remains to be seen. This year will test it thoroughly. Should it be found that the fish do not readily enter, it will be necessary to extend the lower end further toward the dam; or by some contrivance turn the fish in the right direction toward the present entrance. This can be readily done at a trifling cost. The pond above the dam is five miles long, covers an area of nearly 1,000 acres, and drains about 2,000 square miles of territory.

Your Commissioners can not let the opportunity pass without testifying to the liberality and good faith of the Ousatonie Company, in thus fulfilling the requirements of its charter. To E. N. Shelton, Esq., the courteous President of the Company, your Commissioners are especially indebted for many kind favors. Also to D. S. Brinsmade, Esq., the able Engineer, from whom much valuable information has been obtained.

A comparison of this fishway with those that enjoy the highest reputation for efficiency and success, will not be uninteresting.

There are three fishways of this description: One at Ballisodare, Ireland, where the obstruction consisted of a natural rock of nineteen and a quarter feet, almost vertical ascent, over which no salmon had ever passed. A salmon ladder was built over this rock, 174 feet long, divided into 15 pools, each 10 feet wide by 11 feet long. The average depth of water ponded on them was 15 inches. The inlet is only 10 inches wide, with a flow of water through it at the ordinary level of the river, two and a half feet deep.

The second is at Collooney, on the same river, having a similar obstruction, with an ascent of 16 feet. The length of the fishway is  $150\frac{1}{2}$  feet, divided into 14 pools, each 10 feet square, with an average depth of 14 inches of water ponded, and the inlet is 15 inches in width, with a depth of ten inches of water flowing through it at ordinary level of the river.

The third is at Galway, on the river Corrib, through which forty thousand salmon have passed in one year. The ascent here at the ordinary level of the river is about five feet. The ladder is 46 feet long, divided into five pools, each 10 feet square, with an average depth of 14 inches. The inlet is 24

inches wide, with a depth of two feet of water, flowing through it at the ordinary level of the river.

These ladders are universally recognized to be perfect. Since they were built the rivers have become largely stocked with salmon. The fishway on the Corrib has been in use 18 years, and it is not unusual to count the salmon passing up at the rate of 140 to 150 an hour.

The best authorities on this subject, that is, men who speak from actual experience, say that the pools should never be less than 6 feet nor more than 10 feet square, capable of holding from 14 to 18 inches depth of water. The rise of the fishway, measured from the surface of the lower to the surface of the upper water should not be more than one inch in six, nor less than one inch in twelve. The inlet at the head for water should not be less than 8 inches nor more than 24 inches wide, with a depth of from 18 to 24 inches of water flowing through it at the ordinary summer level of the river.

Samuel H. Roberts, Esq., an experienced engineer, and an expert in this business, maintains that neither the length of the dam nor the breadth of the river affords any correct basis upon which to fix the size of the inlet or the quantity of water to be directed to the fish-way. The fair basis to regulate the quantity is the extent of the rain basin of the river. For 50 square miles and under, the minimum opening should be 8 inches in width, with the sill 18 inches below the apex or top of dam, the depth of water in all cases to be 18 inches. For every additional 50 square miles the width of the opening should be increased one inch until it reaches 12 inches. When it exceeds 250 square miles the width should be increased at the rate of one inch for every additional 100 square miles, until it reaches eighteen inches. When it exceeds 850 square miles it should be increased at the rate of one inch for every additional 200 square miles, until it amounts to three feet, which may be considered a maximum. One of the most important points to be kept in view is to have the lower entrance of the fishway open into the deepest pool, near the foot of the dam, just where the fish are known to congregate. For this purpose the fishway may be turned at any angle to the

right or left, and at any point of its descent which may be required. The fishways at Ballysodare and Collooney are so turned and the fish have no difficulty in finding the entrance, guided as they are by the current rushing from the fishway.

When the river is low the water may be shut off part of the time, say during the day, and let in during the night, and on Sundays and holy-days. The amount of water diverted from the dam by the fishway at Corrib is only  $\frac{1}{160}$ th part of the summer discharge.

Mr. Roberts, under date of January 28, 1869, writes, "There can be no question that the plan of these ladders at Galway is the most perfect that has been adopted in this country. No other arrangement that I have seen has answered so well, and I think every form and plan that has been suggested has been tried. The *pool* system which was tried at Athlone, was a complete failure. Mr. Brady, Inspector of Irish Fisheries, writes, "I have closely watched the Fish Passes in Ireland for nearly twenty years. As a general rule the ladders at Galway, Ballysodare, and Callooney, are decidedly the best form.

The *pool* system above mentioned, consists of a series of boxes placed below each other. It has been tried at Lowell, Massachusetts, and has proved a failure, as it has elsewhere. Mr. Roberts says it proved a failure at Athlone. It was found that the confined space of each pool, with the boiling, rotary current, must make it impossible for any salmon to rest in it; and during a drought when only two or three inches of water are flowing out, no salmon would be induced to leap into the pool.

#### FISHERMEN.

Your Commissioners regret to report that they have had some trouble with the gill-net fishermen, near the mouth of the river, and still more with the pound fishermen, on the Sound. Complaints having been made that both classes were violating the law in respect to close time, your Commissioners went to Saybrook on Saturday the 14th of May, 1870, and in the evening toward midnight, made a thorough inspection of



the river, from its mouth as far up as Essex. Four boating parties were discovered, fishing with gill-nets. One boat escaped pursuit; the parties on the other three boats were recognized, and most of them subsequently arrested. On trial before Justice Hart, of Saybrook, two were found guilty, and bound over to the Superior Court, and now await trial. On the next day, Sunday, your Commissioners personally examined the pounds between Saybrook Light and Duck Island. At the beginning of the season of 1870, the pound fishermen had been invited to a conference with your Commissioners, at Saybrook, with a view to the adoption of some feasible plan for excluding the fish during close time between Saturday night and Monday morning, as provided by law. After some discussion it was finally agreed that the fishermen should take up the leader so that a space of twenty-five feet should be left between the leader and the opening into the heart of the pound, thereby affording a free escape for the fish by the pound.

With few exceptions this agreement was utterly disregarded by the pound fishermen. Out of sixteen pounds examined, as above stated, *only one* was found with its leader properly brailed up. The rest were in full operation for catching the fish, and the returns from these pounds the next morning showed a better count than those of any week day. Various expedients were resorted to for evading the law. Some had added an excess of twenty-five feet to the end of the leader, which addition was known as "the law piece," and, when it was brailed up, it left the leader as complete and effectual for guiding the fish into the pound as before. Others had twisted up materials into a roll and so attached it to the leader as to give it, in the distance, the appearance of a brailed up net. Warrants were issued for the arrest of the offenders, only one of whom has been tried. He was acquitted through defect in the proof of ownership.

On the 30th of April, 1871, before the pounds had been set for fishing, the pound-men were again requested to meet the Commissioners, to agree upon some plan for the present season. A large number of fishermen were present at the



meeting, and various plans were discussed, but none proved acceptable to the fishermen, except such as would be utterly useless to effect the desired object. The plan adopted in Canada, and which had worked for some time to the satisfaction of all parties, was proposed. It was as follows: "At the outside of the chamber and in the pound of every set or stake net for the capture of salmon or sea trout, there shall be maintained a flap or door, at least ten inches square, which must be left open, affording free egress and passage to salmon and trout, from sundown on Saturdays until sunrise on Mondays." But this was rejected as "impracticable and impossible." Again it was proposed that the entrance of the heart should be closed by a net curtain during close time. This was a simple and cheap contrivance, which had been tried in other places and proved successful in keeping out the fish. Some of them confessed that it was cheap and practicable and would be attended with but little trouble; but, on submitting it to their approval, it was unanimously rejected. On further discussion your Commissioners were persuaded that a mutual agreement could not be reached. Indeed, some of the fishermen confessed that they would not accept any plan which would exclude the fish. They seemed determined to fish at all times in defiance of the law—and this, probably, most of them have done ever since the law was enacted. In the discharge of their duty under the law, your Commissioners prepared a printed notice and caused it to be served upon all the pound fishermen, as follows:

"NOTICE TO POUND FISHERMEN.—The undersigned, Fish Commissioners of Connecticut, hereby give notice that they have approved of the following plan for the free passage of fish at all times between the setting of the sun on every Saturday evening and the rising of the sun on each succeeding Monday morning, during the year 1871, that is to say: The owners of all pounds or weirs shall, during said period of close time, keep the pound or weir closed by a net curtain, of the same mesh as the leader, drawn across the outer entrance or entrances of the heart so as to effectually exclude the fish from the heart as well as from the bowl. And further,

they shall take up and keep up for the same period of close time so much of the pound end of the leader as will leave a clear space for the free passage of fish, at least twenty-five feet wide, measuring from said net curtain toward the shore.

March 24th, 1870."

Pound fishing having begun, a visit was made to the pounds on Sunday, April 30, to see how much this notice was heeded. All the pounds from Saybrook Lighthouse, west to the Great Hummock, off Clinton, except one, were set in violation of the law. There were twenty-three in all—sixteen were in full operation, and all the others, save one, were so rigged with curtains as to be utterly useless for excluding fish. On examining the returns from these same pounds on Monday morning, it was found that the catch of those that were rigged with the curtains were about the same as those of the others who made no pretense of keeping the law. None of them took less than 100 shad; some took as many as 280. These were fair returns for the beginning of the season.

It is submitted that in view of such bad faith and lawlessness as this, we have another good reason, if another were needed, why these destructive contrivances should be no longer tolerated—and it is well that this is the last year that the law will permit them. Many of them extend a mile into the Sound; some extend three miles. Some have one bowl, some two, and some three. More destructive methods of fishing have never been devised. From the time the first one was established near Saybrook light, in 1849, there has been a rapid falling off of fish in the river. The very first year the Pavement Fish-place in the river, which was up to that time valuable, was destroyed by it. The Griswold Pier and the Parsonage Pier, formerly very valuable, have in like manner been ruined and abandoned. The concurrent testimony of disinterested parties is emphatically against them. Wherever they have been abolished an immediate change for the better has followed. Says Charles Williams, overseer in the Bay of Quinte Division, in the province of Ontario (See Report 1870, p. 73.) "The abolition of hoop and pound nets in the Bay of Quinte is marked by a great improvement in the



increase of fish." P. Kiel, overseer of another district, makes a similar report (Ib., p. 74), "Fish never were so numerous in this district as this summer and autumn. The increase in the catch may be attributed to a general observance of the fishery laws. Hoop-nets are confined to certain places where the more valuable kinds of fish are not met with." Mr. Mooney, overseer of another district, says (Ib., p. 34), "Messrs. Wallan and Hunt report an increase in the catch since the use of the trap-net has been abolished, but state that complaints are made against licensing hoop-nets, they being but a modification of trap-nets under another name." He might have added that the hoop and trap nets are but modifications of pounds.

The same report says: The south branch of the Avon river many years ago, swarmed with Salmon and Gaspereaux (alewives), but owing to what we call "fish pounds," they have almost entirely left the river.

So destructive have they been found in Maine, that (in all its waters except the Penobscot) they have been restricted to limits that cannot be extended beyond two feet depth of water at ordinary low tide (see Sec. 13, chap. 70, Laws of 1869—Maine). Mr. Atkins, in his Report of 1860, page 8, says: It is of the utmost importance that this provision of law be retained. No other could be devised that would bear so easily on the fishermen, and still effect so much." He advises still further restrictions, limiting the depth of the weirs, for with the law as it is, too few Salmon escape and reach their breeding grounds. The Penobscot was excepted from the operation of the law through misrepresentation of the facts.

All the commissioners of New England, are agreed upon the destructive character of these traps. The law that abolishes them in this State after 1871, was enacted after thorough investigation, made by the Legislature in 1868. They would have been abolished at the time, but for the fact that regard was had to those who had invested in the business. It was said that their nets would last about three years, and so they were permitted to use them until worn out in 1871.

It would have been better, perhaps, if the State had paid for them in 1868; at their appraised value, and abolished the pounds at once.

To sum up the whole matter of fish pounds, your commissioners believe they should be abolished for the following reasons:

First: They are nuisances on the high seas, placed in the water without a shadow of right,—a continued obstacle to the navigation of both large and small craft.

Second: They prevent the free passage of the fish to their spawning grounds, and destroy them in such quantities as to threaten complete extermination.

Third: They impair vested rights, in that they inflict immense injury upon all the fishing rights on the river, not only in our own, but in sister States, and this without any compensation. Were such rights injured in any other way, as for example, by a dam thrown across the river, no one would question the right to such compensation.

Fourth: Justice and equity demand that the preservation of fish in the Connecticut at public expense, should be for the benefit of the public. The right to a free passage of the fish into and up the river, is a public right, and it is subject to legislative control. This control should be exercised for the greatest good of the greatest number, and should prevent pound fishermen creating a virtual monopoly of the fish. All our people alike upon the river, are entitled to a fair proportion, as the fish ascend the river. There should be no exclusive privileges permitted, either in times or modes of fishing. But all should be so regulated and adjusted, that the legitimate claims and rights of all are protected.

Fifth: But for the efforts made by the State, the Connecticut would have soon been exhausted of shad, by this reckless mode of fishing. Fortunately, these efforts have been made before it was too late; and their results are beginning to appear in the river. The people who are taxed to pay the expense, should reap the benefit, and not a favored class. Nor is it to be expected that the expense of artificial hatching, is to be repeated indefinitely. It is to be continued only



so long as may be necessary to restore the fish in sufficient abundance, to supply the reasonable demands of the people, and make the river self-supporting. But this can never be accomplished so long as the pounds are permitted.

Sixth: From the facts adduced herein, it is evident that those engaged in pound fishing will not submit to regulation. The chance of profit is so great, and the risk of detection so small, that few, if any, will resist the temptation to fish in violation of law. The false notions that prevail among the fishermen, with respect to what they imagine to be their rights in the business, readily tend to smooth the way to such misconduct. The extent of territory covered by these pounds, their peculiar construction, their great distance from the shore, and their almost entire concealment under water, render efficient supervision over them impossible, without great labor and expense. If they are allowed to remain, they must be constantly watched; and to do this the expense would be more than the State would be willing to incur. Hence the only alternative is, that they must be abolished. Doubtless the ordinary modes of fishing, which will still be open to these fishermen, will not prove so profitable, but that is no good reason for complaint. They will still enjoy the same privilege that all others enjoy, who have rights in the fish—no more, no less. In the long run, however, it will prove advantageous to them, for they will find that they have not been permitted “to kill the goose that laid the golden egg,” as they would have done through their pound fishing.

Finally: The honor and good faith of Connecticut are pledged to Massachusetts, Vermont, and New Hampshire, that they shall be abolished. But if such pledge had not been given a proper respect for the rights of those States, to a fair share of the products of the river, would impel this State to abolish them.

Attention is called to the defects in the law, whereby these pounds are abolished after this year. No penalty is provided in case they should be continued. It is believed that nothing but the severest penalties, accompanied by confiscation of

the nets, boats, ropes, and other materials employed, will restrain parties from violating the law. It is also believed that the provisions of the law are not sufficiently comprehensive to prevent evasion, that they should be so extended as to forbid any fixed or permanent contrivances whatever, to be set up for catching shad, beyond low water mark. Your commissioners especially recommend that in cases of violation of the laws regulating close time and determining the size of the mesh in addition to the penalties already provided, the commissioners should be authorized in person or by deputy, to confiscate and sell the fish forthwith, and to seize the nets, boats, ropes, and other materials so illegally employed, and hold the same pending the trial, and upon conviction, to sell the same, and divide the net proceeds between the informer and the State Treasury.

Your commissioners especially recommend that the law authorizing the appointment of fish-wardens (Chap. 27, S. L. 1869), be so amended, that such appointments when requested by your commissioners shall be imperative upon the Selectmen, and that they be such as are approved by your Commissioners. And in order to secure a more faithful and efficient discharge of the duties of such wardens in addition to the compensation already provided, they shall be entitled to one-half of the net proceeds of all property confiscated for violation of the law discovered by them. Wherever the introduction and protection of fish have become subjects of legislative concern, fish wardens have been found indispensably necessary. If our people are to reap the full benefit to which they are entitled by reason of the expense and trouble incurred by the State, the laws regulating the fisheries must be respected, and experience proves that in no way can this object be secured better, than through fish-wardens, whose special duty it shall be to watch their districts, and report all breaches of the law therein. They should be appointed for lakes and ponds, as well as for rivers. There are many of these wardens in Canada, Maine, and Massachusetts, and the increase of fish under their protection, more than compensates for their expense.



The mesh of all nets used in the season of shad fishing, should be enlarged. No mesh should be less than five inches. Your Commissioners know from personal observation, that a large number of young shad are caught, that will not weigh over half a pound. All shad that can escape through a five inch mesh are immature, and should not be taken.

A law should be passed, forbidding the taking of any parr, smelt, grilse, or salmon, in *any of the waters of the State*, before the 15th day of March, 1875, and any person so taking, or having in his possession, any parr, smelt, grilse, or salmon so taken, shall pay a fine of twenty dollars for such fish, said fine to be divided equally between the informer and the Treasury of the State.

Your Commissioners take great pleasure in testifying to a generally improved sentiment among our people, with respect to fish culture, and fish laws. Many of the fishermen begin to appreciate the importance of State action, and to realize that the laws are passed, not to injure their business, but rather to promote and increase it.

Their prejudice and incredulity are fast disappearing in the light of incontrovertible facts: and in place of indifference and sometimes hostility, your Commissioners find a growing interest, and readiness to co-operate in the good work.

Pursuant to a law enacted last session (see appendix), your Commissioners met at Hartford, and drew lots to decide their tenure of office. Wm. M. Hudson drew for four years, Robert G. Pike for three, and James A. Bill for two.

The financial statement will be found appended.

Respectfully submitted,

ROBERT G. PIKE,  
WM. M. HUDSON,  
JAMES A. BILL.





## FINANCIAL STATEMENT.

Balance on hand May 7, 1870, date of last Report, .	\$2,732.12
Appropriation May Session, 1870, . . .	3,000.00
	<hr/>
	\$5,732.12
1870, June 25, Paid S. H. Lord, Commissioner, .	\$35.00
“ July 9, “ Jas. Rankin, Hatching Shad, .	500.00
“ “ 9, “ Case, Lockwood & Brainard, Printing, . . . . .	94.60
1870, Nov. 11, Paid E. S. Woodford, Black Bass, .	809.87
1871, Jan. 25, “ M. C. Edmonds, 2,078 Salmon Ova, . . . . .	41.56
1871, Jan. 27, Paid Rev. Wm. Clift, 10,000 Schoodic Salmon Ova, . . . . .	202.50
1871, March 1, Paid Samuel Wilmot, 10,000 true Salmon Ova, . . . . .	445.50
1871, March 15, Paid Rev. Wm. Clift, transporta- tion Ova, . . . . .	25.35
1871, May 10, Paid Wm. M. Hudson, Com. pay, .	444.00
“ “ 10, “ “ “ “ expenses, .	476.95
“ “ 10, “ Robert G. Pike, “ pay, .	357.00
“ “ 10, “ “ “ “ expenses, .	392.82
“ “ 10, “ James A. Bill, “ pay, .	36.00
“ “ 10, “ “ “ “ expenses, .	51.45
	<hr/>
	\$3,912.60
Balance on hand, May 10, 1871, . . .	<hr/> \$1,819.52
1871, May 11, Paid Rev. Wm. Clift, for Hatching and distributing Salmon Fry, . . . .	184.63
	<hr/>
1871, May 12, Balance on hand, . . .	\$1,634.89



# APPENDIX.

## CHAPTER XVIII.

An Act for the protection of Fish in Columbia River.

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

SEC. 1. The taking of any fish from the Columbia Reservoir in Columbia, by any hook, net, spear, or in any other manner, from the first day of December, till the first day of April in each year, except upon the first Monday of each of the months of January, February, and March, of each year, is hereby prohibited.

SEC. 2. For each and every violation of this act, the person or persons so offending, shall be punished, upon conviction thereof, by a fine not exceeding fifteen dollars, to be paid to the treasurer of the town of Columbia, or by imprisonment not exceeding ten days, or by such fine and imprisonment both.

Approved, June 23d, 1870.

## CHAPTER XLIII.

An Act relating to Fishing in the Waters of Stonington.

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

SEC. 1. That any person who shall take, or assist in taking, any eels by fire-light or eel-pot, or trap of any kind, or seine of any kind, at any season of the year in the waters of the town of Stonington, in the county of New London, shall be punished by a fine not exceeding one hundred

dollars for every such offence, or by imprisonment in a common jail not exceeding three months, or by such fine and imprisonment both.

SEC. 2. All acts and parts of acts inconsistent herewith, are hereby repealed.

SEC. 3. This act shall take effect from and after its passage.

Approved, July 5th, 1870.

## CHAPTER LVI.

An Act for the regulation of Fishing in the Waters of Stonington.

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

SEC. 1. The act prohibiting the taking of fish in Mystic river, New London county, passed June 19, 1866, shall apply to the waters in town of Stonington, in said New London county, above the railroad bridge in said Stonington. And it is further enacted that no "Fyke net" shall be used or set in the waters of Stonington for the purpose of taking fish between the first day of February and the first day of May in each year; and that no seines of any kind shall be set or used in the waters of Stonington aforesaid, except a "Gill net," and that with a mesh of not less than three inches; and any person offending against any of the provisions of this act shall be punished by a fine not exceeding fifty dollars for every such offence; one-half to go to the informer and the balance to the treasurer of said town of Stonington.

SEC. 2. All acts or parts of acts inconsistent herewith are hereby repealed.

SEC. 3. This act shall take effect from and after its passage.

Approved, July 6th, 1870.

## CHAPTER LXXXVI.

An Act in addition to "An Act for Encouraging and Regulating Fisheries."

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

SEC. 1. That the provisions of the General Statutes for encouraging and regulating fisheries, and the acts in addition thereto, and in alteration thereof, shall not be so construed as to prohibit fyke fishing in the coast and inlets of the towns of Groton and Stonington.

SEC. 2. Chapter XLIX of the Public Acts, passed May Session, 1869, is hereby repealed.

Approved, July 13th, 1870.



## CHAPTER LXXVII. .

An Act in addition to "An Act for encouraging and regulating Fisheries."

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

SEC. 1. That every dam or other artificial obstruction now existing or hereafter to be built upon the Quinnebaug, the Shetucket, or the Farmington rivers, in this state, and in the Housatonic river below the great falls in New Milford, shall be provided by the owner or occupant of such dam or artificial obstruction with a durable and suitable fish way for the passage of fish, of such form and capacity and in such location as may be determined by the fish commissioners of the state.

SEC. 2. Whenever the fish commissioners of the state shall have determined upon the form, capacity, and location of any such fish way, they shall give written notice thereof to one or more of the owners or occupants of the dam or artificial obstruction over which such fish way is to be built, and they shall require the same to be built within a time to be therein specified by said fish commissioners.

SEC. 3. If such fish way is not built and completed to the satisfaction of the fish commissioners within the time specified by them, the owner or occupant shall forfeit to the state not more than fifty dollars nor less than ten dollars for every day between the first day of May and the first day of November, during which such fish way shall remain incomplete after the expiration of the time fixed by such notice.

SEC. 4. On the completing of any fish way to the satisfaction of the fish commissioners, it shall be incumbent upon the owners or occupants to alter such fish way, and to keep the same in repair and open and free from obstructions to the passage of fish in such manner and during such period as the said fish commissioners shall require. The penalty for neglecting to comply with any part of this section shall be not less than ten nor more than fifty dollars a day for each day of such neglect, which sum shall be forfeited to the state. If no period shall be specified by such fish commissioners, the fish way shall be kept open and free from the first day of April to the first day of November in each year.

SEC. 5. Any person who shall take or assist in taking from the Quinnebaug, the Farmington, or the Shetucket rivers, mentioned in this act, or from any tributary thereof, any shad, salmon, grilse, smolt, or parr before the fifteenth day of March, 1875, shall forfeit and pay for each offense to the treasurer of the county where such offense is committed the sum of fifty dollars.

SEC. 6. All complaints for violation of this act may be made to the justice of the peace in any town adjoining the river or its tributary in which said offense is committed—and the same shall be made by the state's

attorney of any county on such river or tributary, and such attorney shall receive the same fees for service as for trials in the superior court, which fees shall be taxed as part of the costs of the prosecution.

SEC. 7. Nothing in this act or any other act contained shall be construed as preventing or forbidding the fish commissioners, or any person authorized by them, from taking fish of any kind in such manner and at such time and place as they may choose for the purposes of science and of cultivation and dissemination.

SEC. 8. The three fish commissioners now holding office shall, upon the approval of this act, or as soon thereafter as may be convenient, meet together and draw lots, which lots shall be respectively marked "two years," "three years," and "four years;" and each commissioner shall hold office for the period so drawn by him and until his successor shall be appointed; and hereafter all appointments to said office shall be for four years and until a successor is appointed; all acts to the contrary hereof notwithstanding.

SEC. 9. This act shall take effect immediately.

Approved, July 12th, 1870.

## CHAPTER LXXXIV.

An Act in addition to "An Act for encouraging and regulating Fisheries."

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

SEC. 1. No person shall, at any time, with intent so to do, catch any speckled trout with any device, save only with a hook and line; and no person shall catch any such trout, or have any such trout in his or her possession, save only during the months of April, May, June, July, and August: but this section shall not prevent any person or corporation from taking trout in waters owned by them to stock other waters; nor prevent any person or corporation from taking and exposing for sale during the month of September any trout reared in waters owned and stocked by them. Any person offending against any of the provisions of this section shall forfeit and pay a penalty of twenty-five dollars for every trout so caught or had in his or her possession.

SEC. 2. No person shall sell, expose for sale, or purchase, or have in his or her possession, any speckled trout taken contrary to the provisions of this act, under a penalty of twenty-five dollars for each fish so sold, exposed for sale, purchased, or had in possession, with intent to violate any of the provisions of this act.

SEC. 3. No person shall at any time, with intent so to do, catch or take any pickerel, pike, black bass, or maskinonge, with any device, save only with a hook and line or scroll; and no person shall catch or take any such fish during the months of April and May. Any person offending against

any of the provisions of this section shall forfeit and pay a penalty of twenty-five dollars for every such offence.

SEC. 4. Any person trespassing on any lands, for the purpose of taking fish from any private pond, stream, or spring, after public notice on the part of the owner or occupant thereof, or of said lands, not to so trespass, such notice being posted adjacent to such pond, stream, or spring, shall be deemed guilty of trespass, and in addition to any damages recoverable by law, shall be liable to the owner, lessee, or occupant, in a penalty of one hundred dollars for every such offence.

SEC. 5. On the non-payment of the penalty provided in any section of this act, the defendant shall be committed to the common jail, there to remain at the rate of one day for each dollar of the amount of the judgment unpaid.

SEC. 6. This act shall take effect from the day of its passage.

Approved, July 13th, 1870.

## CHAPTER CXVI.

An Act regulating the taking of Shad in the Housatonic River.

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

SEC. 1. Every person who shall take any shad in the Housatonic river, between the new dam in process of construction at Birmingham and the locks in the canal about six hundred yards below said dam, shall forfeit, for every such offence, the sum of one hundred dollars, to him who shall sue therefor and prosecute his suit to effect.

SEC. 2. This act shall take effect from and after the day of its passage.

Approved, July 19th, 1870.

## CHAPTER CXXVI.

An Act amending "An Act regulating the taking of Shad in the Housatonic River."

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

That "An Act regulating the taking of shad in the Housatonic river," passed May session, 1870, approved July 19th, 1870, be amended as follows: by adding after the word "between" in the third line of the first section, the words "two mile island (so called) and", and by striking out in the sixth line, after the word Birmingham, the words "and the locks in the canal about six hundred yards below said dam."

Approved, July 21st, 1870.



## CHAPTER XCV.

An Act in addition to "An Act for encouraging and regulating Fisheries."

*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

Every person who shall use or assist in using any powder, nitro-glycerine or other explosive substance for the purpose of taking, catching, or destroying fish in any of the waters within the jurisdiction of this state, shall be punished by a fine not exceeding fifty dollars, or by imprisonment in a common jail not exceeding three months, or by such fine and imprisonment both.

Approved, July 14th, 1870.



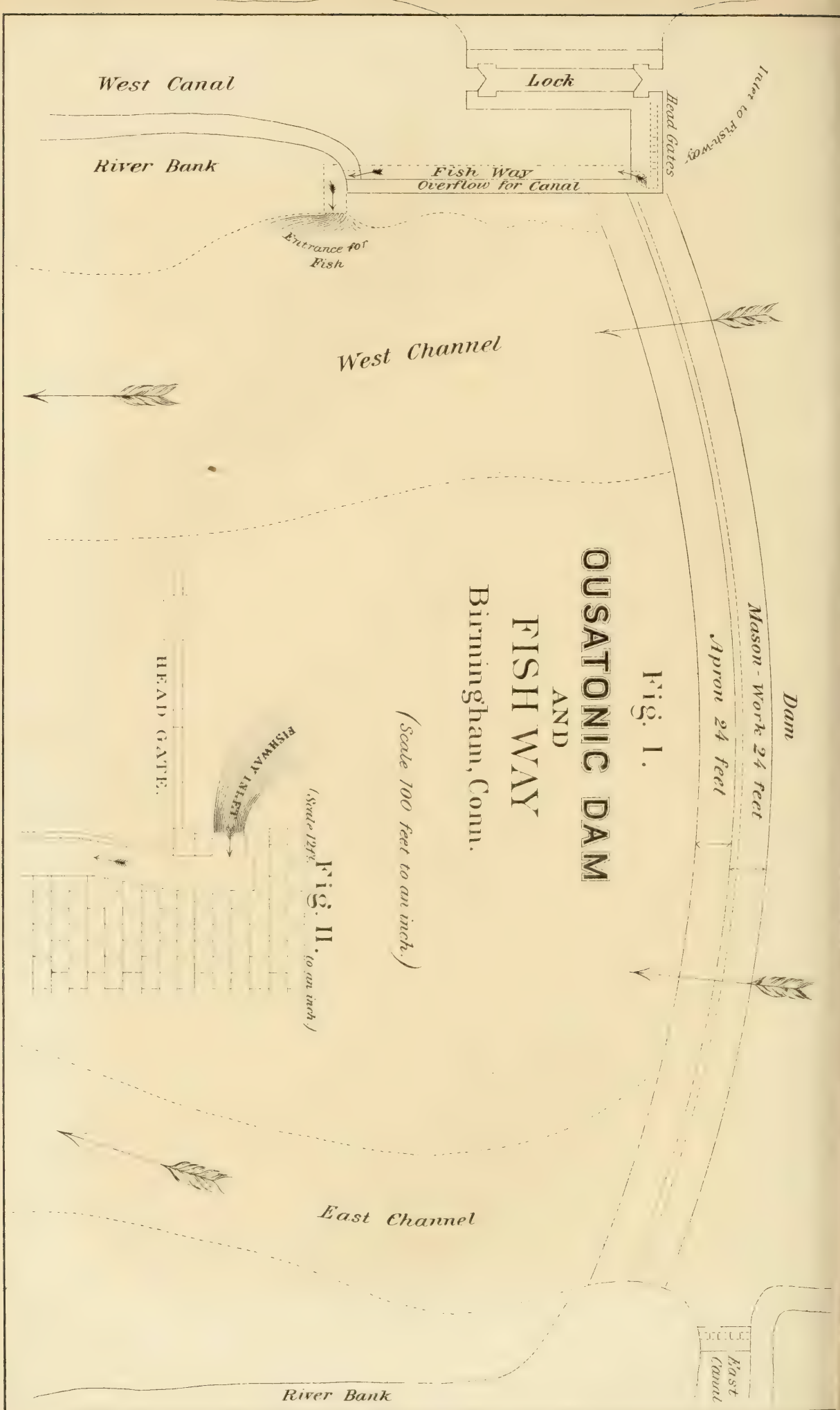




Fig. III.

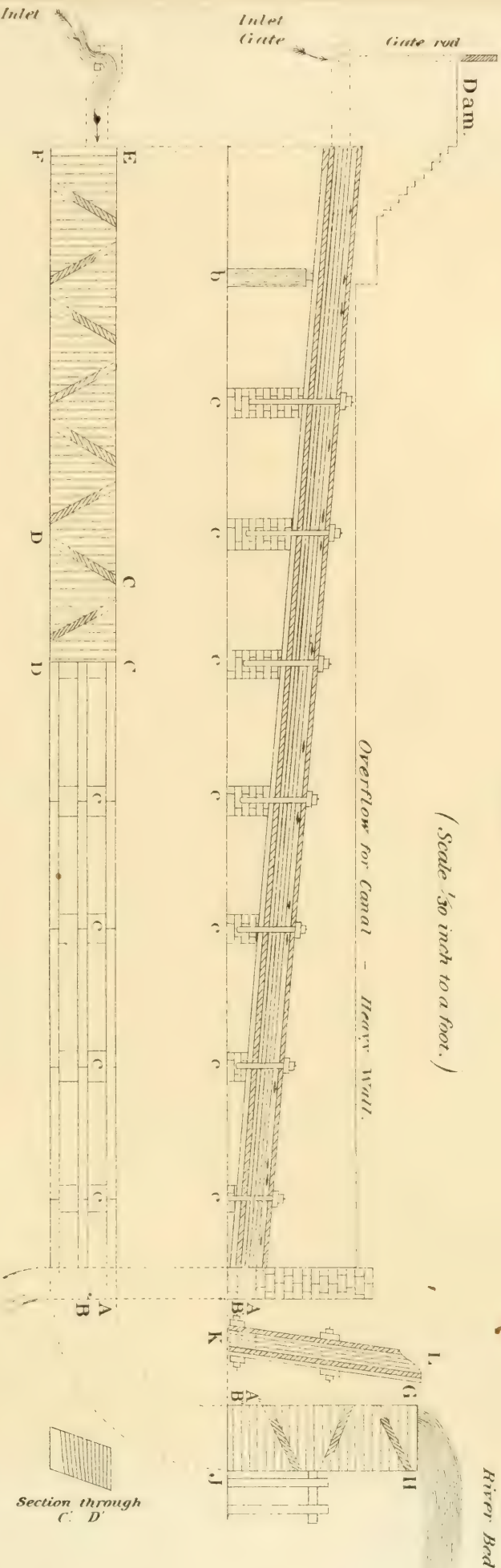
FISH WAY

AT

OUSATONIC DAM

Birmingham,  
Conn.

(Scale  $\frac{1}{50}$  inch to a foot.)





MINORITY REPORT  
OF THE  
JOINT SELECT COMMITTEE ON  
FISHERIES,

ON PETITION OF

WM. N. KIRTLAND,

AND ONE HUNDRED AND ONE OTHERS, INHABITANTS OF  
THE TOWN OF WESTBROOK, FOR REPEAL OF  
LAWS PROHIBITING POUND-FISHING,

---

*Printed by Order of the Legislature.*

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HARTFORD:  
PRESS OF CASE, LOCKWOOD & BRAINARD.  
1871.





## REPORT.

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GENERAL ASSEMBLY, }  
May Session, A. D. 1871. }

The undersigned, a minority of the Joint Select Committee on Fisheries, to whom was referred the petition of William N. Kirkland, and 101 other inhabitants, of the town of Westbrook, for repeal of laws prohibiting pound-fishing, being unable to agree with the majority of said committee, begs leave to make a minority report as follows :

That he has, with the other members of said committee, had said petition under consideration, and is of the opinion that the prayer thereof ought to be granted ; and for grounds of this opinion he finds and reports the following facts: That the amount invested in pound-fisheries along the Connecticut shore of Long Island Sound, west of the mouth of the Connecticut River, is upwards of one hundred thousand dollars, exclusive of the value of the fisheries themselves ; all of which would be wholly destroyed, if the law of 1868, abolishing pound-fishing, after the year 1871, shall go into effect.

That these pound-fisheries employ several hundred men during the fishing season, who are immediately dependent upon the product of this business for the support of themselves and their families.

That the shore towns, being poor in agricultural resources, depend largely upon the fishing interest along the shore of the Sound for business and employment, and are deeply interested in the continuance of the pound-fisheries.

That the product of these fisheries, as shad-fisheries alone, is upwards of seventy-five thousand dollars (\$75,000) per an-

num; that the product of alewives is about twenty-five thousand dollars (\$25,000) per annum; and that the product of white fish is about fifty thousand dollars (\$50,000) per annum; making, all told, one hundred and fifty thousand dollars (\$150,000) per annum!

That the white fish are used largely for manuring purposes, on the farms along the shore, and for miles inland, and that no other fertilizer can be obtained which will adequately supply its place, in cheapness and quality.

That reliable statistics show that the catch of shad for the last twenty-one years,—taking the catch on the river and shore of the Sound together,—has annually increased, and that there are no indications that the waters of the State are over-fished; but, on the contrary, there is every indication of a steady increase in the number and abundance of that fish.

That by the legislation of 1868, these fisheries, as fisheries for white fish and alewives, have been almost wholly destroyed; and that, in consequence, a monopoly of that kind of fishing has been, since that date, conferred upon the river towns to the great detriment of the shore towns.

That the fishermen have faithfully observed, at all times when the weather would permit, all the rules and regulations of the Fish Commissioners, their report to the contrary notwithstanding; that there is no pound along the Connecticut shore of Long Island Sound a mile in length, and but one which is over three hundred rods in extent, and this has its base in a deep indentation of the shore, and does not reach beyond the line of headlands; and that there are only two or three pounds, of inconsiderable length, that are projected from the headlands of the shore.

That owing to the observance of the regulations of the Fish Commissioners, the action of the tides and some other natural causes, the existing pounds do not, in fact, catch fish over half of the time during the fishing season.

That upon the theory presented by the fish commissioners, the supply of shad from the spawn already put into the Connecticut River by re-production in the ratio claimed, would supply the present annual catch for half a century; and that



it would be a wiser policy for the state to continue a small annual expenditure for purposes of artificial cultivation, than to destroy the large fishing interest along the shore of the sound.

That the true rule is, to catch the greatest number of fish annually that can be caught without diminishing the supply ; and that we are safely within that rule, when statistics show for nearly a quarter of a century, as they do show, that there has been not only no diminution in the supply, but even a gradual annual increase.

That if the law of 1868, abolishing pound fishing after the year 1871, is allowed to go into effect, it will destroy interests of nearly a quarter of a million of dollars per annum, in addition to the immediate loss of the amount now invested in pound fisheries.

That the abolition, in 1868, of fine mesh fishing, so that white fish and alewives can not be caught; the weekly opening of the leaders of the pounds so that fish can avoid the pounds for about one-fifth of the time; the prohibition against erecting pounds within seventy rods of one another; the working of natural causes which prevent large numbers of fish from coming within the line of pounds along the shore; and the action of the tide in elevating, for a considerable part of the time, the nets used along the line of the leaders, so that the shad, which is a ground fish, can in large numbers pass all obstructions, are, in the opinion of the undersigned, grave and heavy burdens already imposed upon this branch of our industry, and fully adequate for the protection of the shad fishing interest of the state; and that it would be both unwise and impolitic to impose heavier and graver burdens upon the fishing interest along shore, in the present crude, uncertain, and experimental condition of the whole subject of pisciculture. It would be far better to await results, than to destroy large amounts of property on mere theory.

That it is both unjust and unconstitutional to destroy the vested interests of one class of men, for the upbuilding of the interests of another set of men.



For the reasons aforesaid the undersigned, a minority of the committee, respectfully recommends, that so much of the act of 1868 as makes it unlawful to fish with pounds in the waters of this state after the year 1871, be suspended in its operation till the year 1873; and, to effectuate that object, the undersigned minority of said committee reports the accompanying bill for a public act, and recommends its enactment into a law.

All which is respectfully submitted.

JOHN S. DICKINSON,  
Chairman *pro tem.* on part of the House, Minority of said  
Committee.

REPORT  
OF THE  
SURVEYOR-GENERAL  
OF THE  
STATE OF CONNECTICUT.

Made to the General Assembly at its May  
Session, 1871.

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*Printed by Order of the Legislature.*

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HARTFORD:  
CASE, LOCKWOOD & BRAINARD, PRINTERS.  
1871.



# REPORT.

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*To the Honorable General Assembly of the State of Connecticut:*

Although it has not been the custom for the Surveyor General of this State to make any reports, it appears to me that there is a necessity for calling attention to some matters of general interest which might properly come within my knowledge and experience, and which are not embraced in the duty or routine of any compensated State official.

The State of Connecticut is very far behind many others in the matter of having accurate and reliable maps of either State, Counties, or Towns. The best surveys we have of most of the towns, were made with a "wheelbarrow," or odometer, with compass attached, run over the principal roads; and the intervening country sketched in. These surveys have been joined together to form county maps, but no map, even of these, has been compiled for the whole State.

The principal map of the State now in use, made some twelve or fifteen years ago, is one of the most remarkably inaccurate maps of a settled country I have ever known. Important points are even miles out of their true position. The whole western portion of the State is crowded in, very unceremoniously, by the State of New York, greatly distorting the natural features of the country. Roads are put down where they do not exist, and many important ones are omitted. This map was probably compiled from the best authorities attainable at the time, but it is far from answering the present requirements of the inhabitants. We do not even know the number of square miles in the State, nor in any one



of the Counties. According to different authorities the areas of the Counties and of the whole State differ very greatly.

The following table gives the areas of the counties by Pease and Niles' Gazetteer of Connecticut, Appleton's Cyclopaedia, and Lippincott's Gazetteer. It also shows the totals, and the area of the whole State as given by the same authorities :

	P. & N.	A. Cy.	L. Gaz.
Litchfield,	885	875	900
Fairfield,	630	620	650
Hartford,	727	750	807
New Haven,	540	570	620
Middlesex,	342	375	430
Tolland,	337	360	440
Windham,	620	560	620
New London,	519	620	650
Totals,	4600	4730	5117
Area of State,	4664	4730	4674

Haskell and Smith give the areas of the Counties the same as Pease and Niles, with the exception of New London county, which is given as 600 square miles. They also give the total of the whole State 4674 square miles. It will be observed that there are great discrepancies in these amounts both for the Counties and the whole State.

The areas for Tolland County differ by over 30 per cent., and for New London County by over 25 per cent. The totals for the whole State differ by a little over 11 per cent. That is to say, that at the present time we do not know the areas of some of our Counties by from a quarter to a third of their exact contents, nor that of the State within about one-tenth of its real value. Not a very creditable state of things when our neighbor Massachusetts has the best survey of any State in the Union.

The following, it is believed, are the only maps of the State that have been made by authority :

In 1720, the Assembly ordered a map to be made of the Colonial Grant to send to England. No copy of this has been preserved.

\* In October, 1764, the Assembly directed a map to be made, and Asa Spaulding, of Norwalk, with Moses Park and Samuel Nott, of Preston, were appointed to make one from actual surveys. In October, 1765, they presented two copies of the map to the Assembly. One was sent to England and the other was deposited in the office of the Secretary of State.

A new map was published in 1812, which bears the following inscription: "From actual surveys made in 1811 by Moses Warren and George Gillet, and by them compiled. Published under the authority of the General Assembly by Hudson & Goodwin." Scale 3 miles to an inch.

This map shows the location of the churches, court-houses, and principal mills and factories. It is rudely drawn, about 3 by 3 1-2 feet in size, and much inferior to more modern maps.

Many States are now having accurate Topographical and Geological surveys in progress, and in some they have been completed. The neighboring State of Massachusetts has a good and accurate map of its territory, both topographical and geological, completed in 1846.

The present time offers great advantages for making an accurate survey of Connecticut. The United States Coast Survey parties have completed the survey of Long Island Sound, extending from a mile to a mile and a half inland, and the primary triangulation has been carried entirely across the State, connecting the measured base lines in Maine and Long Island, Epping base and Fire Island base,) thereby saving a large part of the most difficult and expensive work. These principal points are probably all to be found at the present time and can be used. The secondary triangulation, along the coast and up the Connecticut River nearly as far as Middletown, embraces a great number of minor points on the survey, but they are of a more temporary character and are rapidly becoming obliterated. Many of them, however, are still to be found.

A diagram of the triangulation of the Coast survey is annexed hereto.

The operations of the Coast Survey will greatly facilitate the

making of a survey of this State if accomplished while the station points of the triangulation still remain. All required distances and measures can be referred to their bases, and determined with greater accuracy than would be otherwise attainable, except at great trouble and expense.

That a survey of the State is necessary, and even of the utmost importance, is evident to all who are obliged to seek for information from existing maps; and it should be commenced at the earliest practicable moment in order to take advantage of what has been done already by the United States Coast Survey. No future time will offer so great advantages as the present for a complete topographical survey, such as is now being made by the State of California.

There are some features that might be embraced in such a survey that would be of vast importance to all land owners in the State. The great discrepancy in measurements of land by the County surveyors and others is well known. It results, in a majority of cases, from the want of a proper standard of measure. Measurements are generally taken with a chain, which if originally correct does not remain so, and in the country towns surveyors have no means of obtaining the correct standard.

In every town, or at least in one or two towns in each county, there should be established permanent fixed points one hundred feet apart for a standard of measurement. Copper bolts driven into holes drilled in rock are the most accurate and permanent. There should also be established in the same vicinity a true meridian to determine the variation of compass needed from time to time.

These measures and meridians should be fixed, even if no general survey should be made. They would give great assistance to surveyors and be of great public benefit.

The western boundary of the State from the Ridgefield angle to the Massachusetts State line, is now in dispute, and the State of New York is exercising jurisdiction over land that properly belongs to Connecticut. An accurate survey would be the first step toward a settlement of the boundary.

There is no doubt that the General Assembly ought to take



some immediate action regarding a general survey of the State, either by commencing such a one as will carry the same system as that of the Coast Survey over the whole State, which is by far the best plan, or by establishing correct standards and meridians in the several towns and Counties, to encourage them in making more accurate surveys ; and leaving to the State the general and topographical survey, with details filled up from the town maps, as was done in the survey of Massachusetts.

I shall be pleased to confer with any one, or give any information in my power with a view to making a commencement on this important work, the cost of which is augmented every year of delay by the destruction of points already determined by the coast survey and the State of Massachusetts. The diagrams showing what has been done on the coast survey triangulations, and along the Southern part of the State will give a good idea of what is to be done to fix the principal points of the survey, and the amount of work that will be saved by making use of these points before they are lost.

Respectfully submitted,

THEO. G. ELLIS,

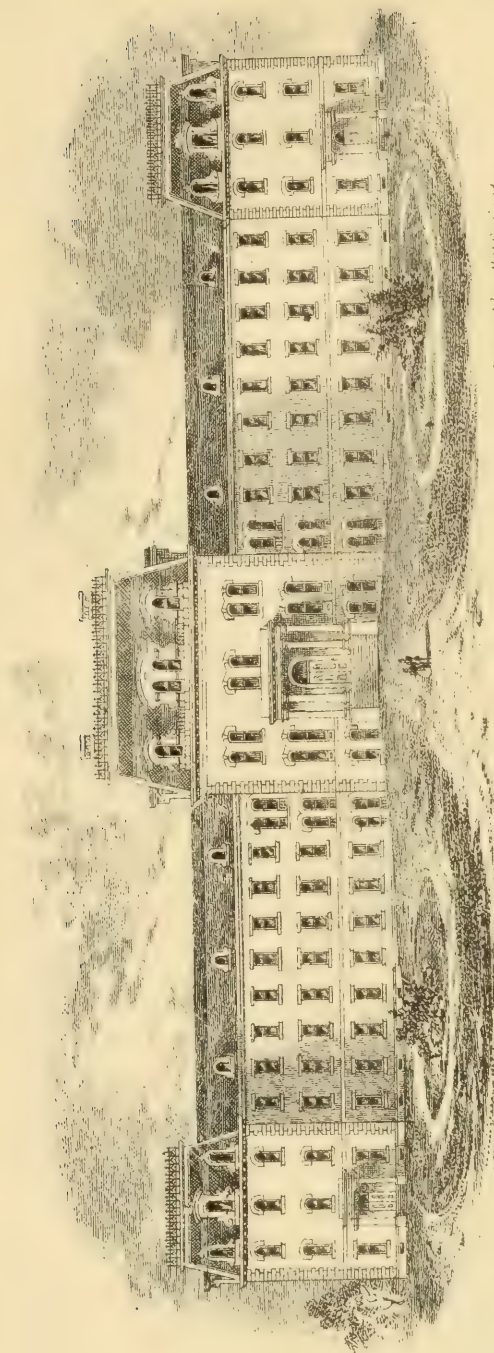
Surveyor General.

Hartford, May 15th, 1871.









*Length 308 feet.*

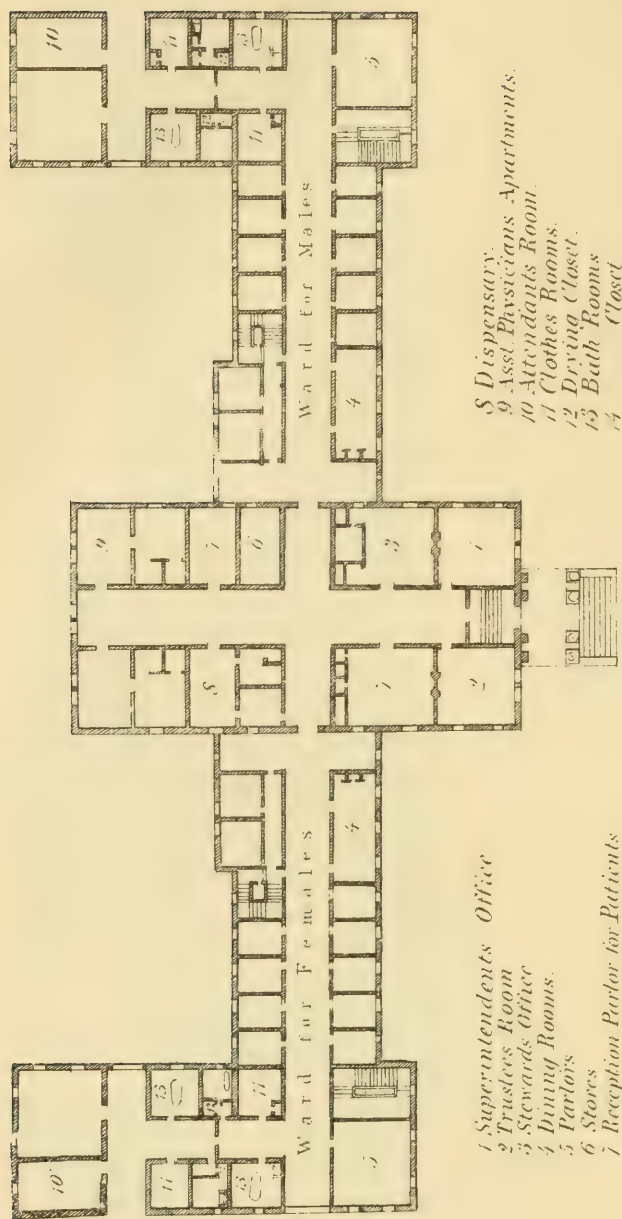
# FRONT ELEVATION OF HOSPITAL

MIDDLETOWN, CONN.

J. H. H. 1871

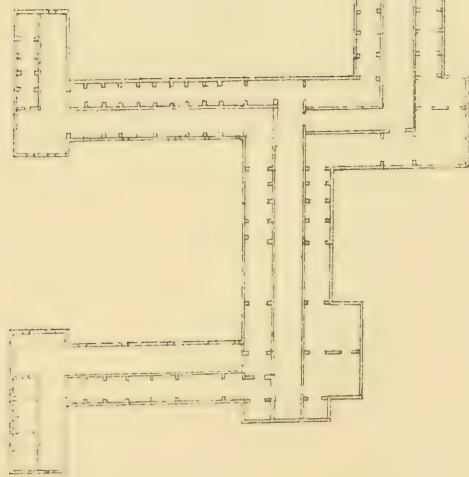






PRINCIPAL PLAN OF PART OF HOSPITAL

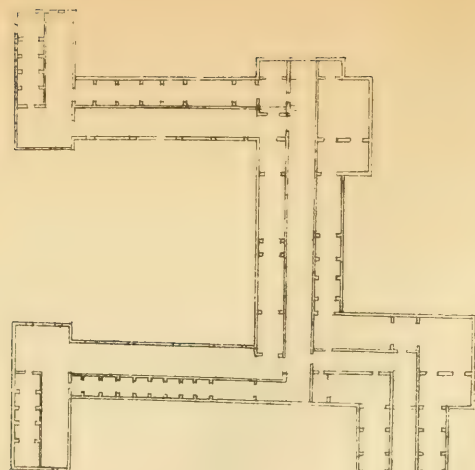
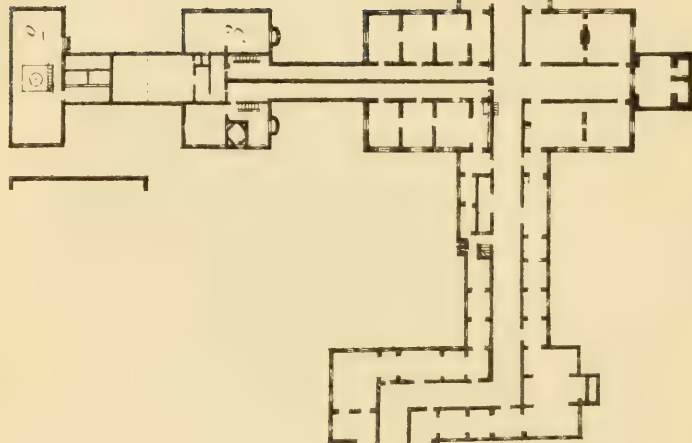




*1 Carpenter and Shop*

*2 Boiler House with ventilating Chimney*

*3 Laundry, &c.*



*Black part    now building, 308 feet*

*Light part    future Extension 768 feet*

CELLAR PLAN OF THE HOSPITAL WHEN COMPLETED.

FIFTH ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

OF THE

General Hospital for the Insane,

OF THE

STATE OF CONNECTICUT,

WITH

SUPERINTENDENT'S AND TREASURER'S REPORTS;

Presented to the General Assembly, at its Session in May, 1871.

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By Order of the General Assembly.

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HARTFORD.

PRESS OF CASE, LOCKWOOD & BRAINARD.

1871.



# OFFICERS OF THE HOSPITAL.

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## BOARD OF TRUSTEES.

JAMES E. ENGLISH,	-	-	-	CHAIRMAN.
R. S. FELLOWES,	-	-	-	<i>New Haven.</i>
HENRY WOODWARD,	-	-	-	<i>Middletown.</i>
<hr/>				
ROBBINS BATTELL,	-	-	-	<i>Norfolk.</i>
H. SIDNEY HAYDEN,	-	-	-	<i>Windsor.</i>
L. S. FULLER,	-	-	-	<i>Tolland.</i>
S. G. WILLARD,	-	-	-	<i>Colchester.</i>
J. D. BATES,	-	-	-	<i>Danielsonville.</i>
BENJ. DOUGLAS,	-	-	-	<i>Middletown.</i>
JULIUS HOTCHKISS,	-	-	-	"
JOSEPH CUMMINGS,	-	-	-	"

---

Superintendent and Physician.

ABRAM MARVIN SHEW, M. D.

---

Assistant Physician.

WINTHROP B. HALLOCK, M. D.

---

Pathologist,

E. C. SEGUIN, M. D.

---

Steward.

J. D. ATHERTON.

---

Matron.

MRS. MARY HALLOCK.

---

Assistant Matron.

MRS. MARGARET DUTTON.

---

Treasurer.

M. B. COPELAND.

---

Farmer.

CLINTON B. WEATHERBEE.

All communications relative to the admission, etc., of patients, should be addressed to the Superintendent. For forms see appendix to this Report.

# REPORT.

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*To the General Assembly of the State of Connecticut:—*

THE Trustees of the General Hospital for the Insane would respectfully present to your Honorable Body their Fifth Annual Report.

During the year past, by the Divine blessing, the Institution under their care has been quietly, steadily, and very successfully performing the work for which it was chartered.

The Report of the superintendent, giving careful and minute statements of the interior affairs of the Hospital is herewith submitted.

High praise is due to him, and to his assistants, for their kind, skillful, and conscientious performance of the laborious, difficult, and very responsible duties of their offices. They have succeeded admirably in carrying out the design of making this, in every respect, a first class Institution.

The Report of the Treasurer to the Trustees is also appended. It shows the finances of the Hospital to

be in good condition. The income has been sufficient to meet the current expenses.

The Trustees have met Quarterly and by Committee much oftener. A portion of the resident Trustees have made monthly visits to the Hospital to examine its finances, inspect the premises, and consult with the Superintendent for its general interests.

The abundant produce of the farm, which has been well cared for, has added largely to the health and comfort of the patients.

A high board fence, much needed to protect the grounds near the Hospital from intrusion, as also the patients from strolling visitors and idlers, has been in part constructed. Its completion has been delayed by the strenuous opposition of certain interested persons, who have thus far prevented the fulfillment of the pledge, which was made to the Trustees before they located the buildings and secured by vote of the town of Middletown, by which, a street little used and running across the Hospital property between the main buildings and the barn, was closed. Much inconvenience and trouble have resulted.

In the last annual Report it was said, "In order to profit by the lowest prices of the markets in the very considerable purchases required for so large an institution it is needful to buy with ready cash. To do this, and thus to keep the commercial credit of the State Hospital at the highest point, several of the Trustees united to provide a cash capital of \$25,000; which

sum was borrowed on the notes of individuals, members of the Board, for the uses of the Hospital, from two Savings Banks in Middletown. The advantage of such a money provision will be evident to all.

By authority conferred by the Legislature of 1870 the Trustees have sold, for Thirty-five hundred dollars, to the Valley Rail Road Company and to the town of Middletown the right of way through the part of the Hospital farm bordering on the river; five hundred of which were appropriated to build fences thereby made necessary, and three thousand towards paying the Twenty-five thousand borrowed last year.

The number of patients constantly in the Hospital, crowd it to its utmost. There are now registered seventy-four applications for admission, in behalf of persons needing the benefit of its treatment, some of whom, though in a suffering condition, must wait their turn till the eyes of their friends are weary with watching, and their hearts are sick through hope deferred. Patients who should have found at once a place here, because there was no room for them, have been carried out of the State to Northampton and Brattleboro, until those institutions can receive no more. In some other cases the cost of securing proper care elsewhere has been consuming the substance of the fatherless.

Numerous painful facts, which have come to the knowledge of the Trustees confirm the propriety of the humane action of the several Legislatures, which



since 1865 have legislated for the benefit of the citizens of Connecticut who might suffer the ills of a mind diseased.

They acted with a wise regard to economy in founding and fostering this Institution, since early attention secured the restoration to health of a large number of insane persons, who would become incurables if neglected. But there is pressing and sorrowful necessity that the building should be enlarged according to the original plan, at the earliest practicable day.

The experience of the past thirty years affords reasonable ground for the belief, that the number of persons in the State, needing treatment for insanity, for a long time to come, will increase year by year. That number is already so great, that the Hospital, if enlarged by two wings, would have none too much room for their accommodation.

In order to do all that was possible, with present means, for the poor, for whom at most there is insufficient room, during the year, in receiving applicants, patients of that class have had the preference. This condition of things is a hardship to persons of moderate means, who need the benefits of Hospital treatment, but are neither paupers or indigent.

The remedy is in the hands of the Legislature. The property holders of the State have cheerfully paid for an institution of great utility and value; but it is yet incomplete and there is not enough room for all the town and State patients. Most of those, who have

been taxed to build it, if they needed, could not have its care for themselves or their children.

The Trustees believe that prompt measures should be taken to remedy this evil, by adding the present year to the Hospital the two wings contemplated in the original plan as shown in the engraving accompanying this report. Insanity is no respecter of persons. No man can be certain that disease or accident will not at a future day render him, or some one very dear to him, dependent for restoration to soundness of mind, upon the best counsel that science can furnish, combined with facilities for wise care, which only a Hospital of the best kind can supply. Some severe suffering has been endured the past Winter which could have been escaped, could the sufferers have found shelter in the Hospital. Nor is there cause to believe that less pain and misery will be borne by the insane in years to come, than in the past, until the State shall make suitable provision for their wants.

The Trustees are encouraged to believe there is a growing conviction among intelligent people in Connecticut, and elsewhere, that the pecuniary interests of the State, as well as humanity and true charity, unite in demanding that the best possible provision be made, at public expense, for the care and recovery of all who are afflicted with insanity. The danger to property and life from insane persons unrestrained, the wretchedness which comes to those who are improperly or unskillfully restrained in poor houses,

or in private buildings, and the increased probability that what would otherwise be a transient disease will by improper treatment be a life-long malady, are powerful arguments for a liberal and enlightened policy.

“The Association of Medical Superintendents of American Institutions for the Insane,” during its annual session held at Hartford, in June last, by invitation visited the Hospital.

An editorial report of the visit in the *COURANT* used this language: “We need only say that the visitors, who are the best judges of such a thing in the country, expressed themselves as extremely well pleased with it [the Hospital.] Some of the most eminent of them, whose indorsement is the highest sanction, said privately, that they knew of no other institution in the country, where the objects sought in such an institution had been better obtained. They said that the construction showed great forethought and knowledge of all the requisites, and a most judicious expenditure of money. We may not improperly quote Dr. Ray as of this opinion.

Dr. Kirkbride thought the Institution exceedingly creditable to the State, and remarked that it was evident the money had been well and carefully expended. The splendid situation was much admired.”

The Trustees are unanimous in the opinion that no Hospital of equal excellence, and capacity to accommodate patients, has been erected since the war for less money. Thus far it has only cost about sev-



enty-five cents on an average to each inhabitant of the State.

When it is remembered that there is more than one religious society in the State, not of great wealth, which has within a few years erected for itself a house of worship costing from one-fourth to one-third as much as the State has paid for the Hospital; and that a single school district in Hartford has expended for its school house half as much; and that single manufacturing companies have erected mills and furnished them with machinery, at a much greater cost; it is evident that the expense for this Institution, in which above half a million of people have an interest, has not burdened them.

The law requires that the price of board shall be kept at its cost to the Institution. Cash purchases very considerably lessen the cost of provisions. But if towns delay payment when bills are due, and the State only pays at the end of the quarter, the difficulty of buying for cash is increased.

The Trustees would recommend that the law be amended so that the State bills be paid monthly, instead of quarterly as at present.

The gentlemen elected last year to fill a vacancy in the Board of Trustees from Fairfield County, finding himself unable to attend to the duties of the office, has tendered his resignation.

The official term of the members of the Board from New Haven and Middlesex Counties expires this year.



The services of the present members have been so valuable to the Hospital and to the State that we would respectfully ask their reappointment.

JAMES E. ENGLISH, NEW HAVEN.

R. S. FELLOWES, NEW HAVEN COUNTY.

HENRY WOODWARD, MIDDLESEX COUNTY.

, FAIRFIELD COUNTY.

ROBBINS BATTELL, LITCHFIELD COUNTY.

H. SIDNEY HAYDEN, HARTFORD COUNTY.

L. S. FULLER, TOLLAND COUNTY.

S. G. WILLARD, NEW LONDON COUNTY.

J. D. BATES, WINDHAM COUNTY.

BENJAMIN DOUGLAS,

JULIUS HOTCHKISS,

JOSEPH CUMMINGS,

} MIDDLETOWN.

# REPORT OF THE SUPERINTENDENT

## TO THE

# BOARD OF TRUSTEES.

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GENTLEMEN:—The closing of another year of Hospital history brings with it the duty of presenting a summary of the events of the twelve months to the 1st of April, 1871. The blessing of God has been over us during this period, and I am permitted to report general good health for the year among officers, employes, and patients. No unusual sickness has invaded our household, and we have been exempt from those accidents not uncommon to Institutions filled with persons in all the various stages of Insanity.

A fair proportion of those committed to our care have been restored to health, while much has been done to ameliorate the condition of that larger proportion of chronic cases now occupying the wards.

A want of system in tabulating Hospital details and

results made difficult the comparison of the Reports of the various Institutions of this country ; hence the Association of Superintendents of American Institutions for the Insane, at their annual meeting at Hartford in June last, recommended a form for presenting Statistical tables, which form will be followed in this Report.

At the date of the last Report there were remaining two hundred and thirty-two (232) patients of whom one hundred and fourteen (114) were males and one hundred and eighteen (118) were females.

During the twelve months since there have been admitted forty-nine (49) males and twenty-six (26) females, seventy-five (75) in all—making the number under treatment for the year three hundred and seven (307,) one hundred and sixty-three (163) males and one hundred and forty-four (144) females ;—of these were discharged :

<i>Recovered,</i>	twenty (20),	fourteen (14) males	and six (6) females.
<i>Improved,</i>	sixteen (16),	eleven (11) “	and five (5) “
<i>Unimproved,</i>	ten (10),	five (5) “	and five (5) “
<i>Died,</i>	twenty-one (21),	eleven (11) “	and ten (10) “
<i>Inebriates,</i>	three (3),	“	

Remaining at this date one hundred and nineteen (119) males and one hundred and eighteen (118) females, two hundred and thirty-seven (237) in all. The daily average during the year is 233.69.

Of the three classes for whom provision is made in the Act of Incorporation, there are at present one

hundred and seventy-five (175) pauper patients, fifty-eight (58) indigent patients, and four (4) private patients.

This simple statement of the proportions of these three classes (which varies very little from the statement of last year) is a complete confutation of the unjust assertions which were made in the General Assembly, viz., that the present buildings were adequate to accommodate all the Insane Poor, if rich and paying patients were excluded. Without attempting to discuss the question which is suggested respecting the injustice of excluding from public Institutions erected at the public expense persons who are able to maintain themselves, I desire simply to report that of the ten self-supporting patients of last year, two have since become paupers, two have recovered, one was removed to another Institution, and one died, leaving the four private patients mentioned above.

The law of the State regulating admissions requires the Superintendent to receive applications, without regard to their relation to classes, in the order of their application ; but he has steadily during the past year endeavored to dissuade the friends of all who had means of their own from making application for admission to our over-crowded wards.

At this date there are seventy-four (74) applications beyond our capacity. The officers are informed, too, of many who would apply if there was a prospect of an immediate reception. We are doing all we can to



meet the wishes of friends and officers of Towns to accommodate those for whom they apply. The number of applications has sometimes exceeded 100 beyond our ability to receive.

A serious consequence of the present policy pursued by the State in affording accommodations only to a limited number of its Insane, will be a gradual but steady increase of the number of chronic cases, and it is easy to calculate that in a few years it will cost more money to support the chronic Insane than it would now to finish this building in accordance with the original design, and thus be able to receive promptly all cases in the early stages of the disease when they are more readily cured, and more likely to be soon returned to their vocations and families.

Of recent cases admitted to the Hospital since its opening three years ago, eighty-eight have been restored to health after an average stay of fifteen weeks and two days. Thus eighty-eight recent cases cost the State and Towns only \$6,724.96, and are now a part of the producing population of their several communities; while the first eighty-eight chronic cases have already been here an average of 151 weeks each and cost the State and Towns \$57,640.00, and yet remain non-producers, to be an expense probably during their lives.

In a population as large as that of Connecticut, experience shows that about 250 new or acute cases of Insanity will annually occur, the majority from the

laboring and active classes of life. These, to be rightly dealt with, in view of their cure and restoration to their several kinds of profitable labor, need Hospital accommodations at once. It is so well known as to be almost needless to repeat that Insane patients cannot be advantageously to themselves or community, treated in almshouses or at their own homes.

In view of the number of Insane already existing in the State and of the annual increase to be expected, is it economy or humanity to further delay such increase of accommodations as shall enable all to receive medical and experienced treatment and thus be restored after a few months to their full duties to society?

It seems a hard case to the officers of such towns as have not heretofore had occasion to send a patient to the Hospital to have their first application refused simply for want of room when they know that other towns have for three years availed themselves of its means of protection and treatment for their cases. Connecticut has one hundred and sixty-four (164) towns; one patient from each would nearly fill the Hospital. Some of the larger towns have 12, 15, and 20 or even more patients already here.

The present policy if pursued will ultimately circumscribe if not wholly defeat the very object intended in the creation of a State Hospital. If we were to make immediate room for the recent cases which apply it would involve the necessity of returning to the sev-

eral alms-houses all the chronic cases ; but would your officers be justified in doing so or would the State sanction such a retrograde movement ? Would not Legislators wisely say “it is far better to double the present capacity of this Hospital by carrying out the original plan of the building” ?

As a belief seems to be entertained in some sections of the State that exceeding liberal provision has already been made for the Connecticut Insane, I take occasion to make a few extracts from Reports and give a few facts from other States.

From the Report of the Directors and Superintendent of the West Virginia Hospital for the Insane for 1867 :

“Massachusetts with five large Hospitals within her borders, is providing a sixth; New York with five large public and some excellent private Hospitals has just resolved to erect two more that will each cost nearly if not quite a million of dollars. New Jersey, small but brave in duty, with one of the best Hospitals in the world, has just resolved to provide for all its Insane, and is enlarging at an expected cost of from two to three hundred thousand dollars. Pennsylvania with five Hospitals of large size and some smaller ones is enlarging its western Hospital and building a new one at Danville. Maryland with two excellent Hospitals is now building two more that when finished will cost together over half a million of dollars, one of them being from private munificence entirely. Ohio



with five excellent Hospitals, (one devoted to the colored insane) has just resolved to enlarge two of them to more than double their present capacity, and also to erect a sixth equal to any of the others, the cost of which is estimated at from one-half to three-fourths of a million of dollars. Kentucky has two and means "to provide for every insane person within her limits."

Since 1867 nearly all of the above plans have been consummated and others not then contemplated have been formed and buildings begun, and in process of completion.

A report presented to the fourth annual meeting of the Rhode Island Hospital concludes as follows :

"It is objected by some that Hospitals are expensive. Of this we are aware ; but are not streets and bridges very expensive ? Are not our private residences, our churches and other edifices very expensive ? The practical question is not whether a Hospital costs a large sum of money but whether it is worth what it costs, whether the money is judiciously expended. No great institutions dispensing their blessings from generation to generation can be established without costing money. But what nobler use for money than to establish them ? How trifling, ignoble, and evanescent are the objects of many of our expenditures compared with the founding of a great Institution for the relief of the suffering, for the healing of the sick, and for the exemplification of a true Christian benevolence for centuries to come ?"



From the West Virginia Hospital Report before referred to, I copy a tabular statement of several Hospitals for the Insane with cost of buildings, etc., remarking only that all these were built before the late war and consequent advent of high prices, and it would be a moderate estimate now to add fifty per cent to the prices then ruling :

NAME, &c.	Capacity.	Cost.	Cost for Patient.
New York State Asylum, Utica,	440	\$517,400	\$1,185
Maryland Hospital, Baltimore,	130	213,600	1,443
McLean Asylum, Somerville, Mass.,	200	321,000	1,605
Penn. Hosp. for Insane, Philadelphia,	240	330,000	1,377
New " " " "	250	325,000	1,300
New Jersey Asylum, Trenton,	250	250,000	1,000
Maine Hospital for Insane,	175	150,700	861
Mt. Hope Institution, Baltimore,	120	200,000	1,666
Butler Hospital, Providence, R. I.,	140	116,000	828
Lunatic Asylum, Taunton, Mass.,	250	250,000	1,000
Michigan Hospital, Kalamazoo,	288	340,000	1,180
Northampton Hospital, Mass.,	250	335,000	1,340
Iowa State Hospital, Mt. Pleasant,	250	359,666	1,440
Average cost <i>per capita</i> before the war,			1,248
" " " " with 50 per cent. added for increased prices, since the war.			1,872

Multiply the above average, \$1872, by 200, the number of patients which the present buildings are intended to accommodate, (although now occupied by 237 patients) and the resulting figures are \$374,400, so that thus far the cost of our hospital has been within the average. But one important fact should be kept in view, viz: that all of the out buildings consisting of bakery, laundry, sewing department, boiler-house, shops, and barns have been constructed with the view to provide for from 400 to 500 instead of 200 patients; hence

future extensions will be required simply to accommodate patients.

Proposals from responsible builders were placed in your hands last year offering to erect one or two wings similar to those already completed and occupied for the sum of \$75,000 each. Adding this amount of \$150,000 to the cost of the buildings, \$375,000, the total will be \$525,000, which will provide accommodations for from 400 to 500 patients at a cost of less than \$1250 each, which we have already found to have been the expense of similar buildings previous to the war. With this addition to our present capacity your Hospital could accommodate the chronic insane and also open its doors promptly to all recent cases.

During the year 31 patients from this State have been treated at Northampton, Mass., and 30 at Brattleboro, Vt. By this generous action on the part of Sister States much suffering has been alleviated and some recent cases cured that might otherwise have become chronic. But we can no longer hope to meet the wants of the State in this direction. Your Superintendent was officially notified in February that the Hospitals of Massachusetts could receive no more patients from out of the Commonwealth. A similar announcement comes to us from Vermont.

### *General Results.*

Twenty-one (21) deaths occurred during the year.

There were in April two (2), in May two (2), in June one (1), in July one (1), in August (1), in September five (5), in October one (1), in November three (3), in December two (2), in February one (1), and in March two (2). The number of deaths equals 6.84 per cent of the whole number under treatment. The respective ages were 49, 80, 45, 88, 49, 37, 24, 28, 70, 39, 70, 36, 36, 29, 45, 35, 55, 68, 41, 67; thus the average age would be 49.55 years. The proportion of deaths between the sexes is about equal, eleven (11) having occurred among one hundred and sixty-three (163) male patients and ten (10) among one hundred and forty-four (144) female patients. Nearly all of these cases were chronic, the disease having existed in one for more than forty years.

During the year a valuable use of a comparatively new remedy, the Hydrate of Chloral, has been made in the treatment of some forms of Insanity.

Having administered it to as many as one hundred persons of both sexes, of various ages and constitutional tendencies, we have no hesitation in saying, 1st, that it is the most sure and powerful of all the sleep-producing remedies known to the profession; 2d, that it has little if any other influence than that just mentioned; 3d, that it is better suited to the excited than the depressed forms of insanity; 4th, that the dose may vary from fifteen (15) to sixty (60) grains; 5th, that a watery solution loses strength on exposure to light even when placed in a ground-glass stoppered



bottle. Sleep induced by an ordinary dose of chloral seems to be natural and refreshing. The patient is easily aroused but usually speaks of being cold. If continued for several weeks a slight inflammation of the eyelids manifests itself, and in one case of violent chronic mania where doses of sixty grains had been given as often as three times a day for several months the bowels became slightly irritable. We have found it specially useful in early stages of acute mania.

Some physicians assert that sleep induced by this agent is unnatural and useless, and that it does not shorten the attack. My experience has not been sufficient to answer the objection, but reasoning "a priori" I cannot but believe that even a few hours sleep repeated day after day must in the end benefit patients. This remedy is valuable in the treatment of that class of chronic cases found in every Hospital for Insane, who seem to be oppressed with sleepiness during the day but toward night become wakeful and irritable, talking and singing boisterously. In one remarkable case of this kind we had the satisfaction of rapid and complete recovery soon after the use of chloral.

### *Special Pathologist.*

In my last Report I suggested the importance of the appointment of a Special Pathologist whose duty would be to make thorough scientific autopsies in important cases. The time of the resident medical officers is so occupied by regular and often perplexing



daily duties in a large Institution, that they have not sufficient leisure to thoroughly examine and analyze the morbid results of insidious and doubtful cases of mental derangement.

Recognizing the importance of such examinations, you promptly and unanimously appointed to this office Dr. E. C. Seguin, of New York, who brings to the work energy and ability as well as the experience of several months as an assistant to the distinguished Brown-Sèquard. Some of the results of the investigations by Dr. Seguin, are herewith reported.

### *Out-door Improvements.*

As fully as we could, we have continued the improvements on the grounds, fences, and buildings. The summer of 1870 was unusually dry and afforded a rare opportunity for sub-soil drainage. The labor of several convalescent patients, under the direction of an attendant, laid about 4000 feet of Boynton's best drain-tile, which is now carrying off from the grounds a continuous two-inch stream of water.

Considerable work has also been done by them in grading and sodding the grounds adjoining the south wing; also in constructing a Macadamized road to the barn buildings. Capacious root cellars, storing 4000 bushels of vegetables, have also been made, and about 90 rods of permanent fence corresponding with that previously erected. By continuing these improvements from year to year, we hope by and by to have graded and laid out in a picturesque manner the [grounds

surrounding the Hospital without calling upon the State for an appropriation for this purpose.

### *Farm.*

Under the judicious management of Mr. Clinton B. Weatherbee, portions of our farm hitherto unused, have been brought under cultivation, increasing the receipts from this source nearly two thousand (\$2000) dollars as compared with those of former years. When it is remembered that the drouth of last year probably lessened the production of farm and garden crops by a third, this statement will be a satisfactory one. Much remains to be done before our land will be under the state of cultivation we aim for. Several of the fields need ditching and under-draining; bushes and stones are to be removed and fences reset. In these improvements we intend to use, as far as is wise, the labor of convalescents, thus doing them good, while a substantial benefit enures to the Hospital. Most insane persons are disinclined to manual labor, or owing to their mental and physical condition cannot apply themselves to it. A few, however, are peculiarly devoted to some chosen occupation, while others are useful in aiding the sane in the performance of the various kinds of work about a large institution. To all such the judicious bestowal of special privileges and favors as a reward therefor tends to encourage them in the right direction; but the primary object of the labor of the insane should be their own improvement, mental and physical.

## FARM PRODUCTS.

Hay,	-	-	-	77 tons,	\$1,925.00
Corn Fodder (dry),	-	-	-	18 "	90.00
Corn,	-	-	-	400 bush.	400.00
Oats,	-	-	-	125 "	81.25
Rye,	-	-	-	200 "	200.00
Broom Seed,	-	-	-	40 "	13.20
Potatoes,	-	-	-	1020 "	1,020.00
Carrots,	-	-	-	80 "	48.00
Beets,	-	-	-	50 "	45.00
Onions,	-	-	-	60 "	120.00
Turnips,	-	-	-	27 "	13.50
Parsnips,	-	-	-	15 "	7.50
Beans (white),	-	-	-	6 "	18.00
Beans (string),	-	-	-	27 "	54.00
Beans (pole),	-	-	-	19 "	38.00
Peas (green),	-	-	-	26 "	52.00
Sweet Corn,	-	-	-	164 "	164.00
Cucumbers,	-	-	-	17½ "	25.00
Tomatoes,	-	-	-	37 "	55.50
Summer Squash,	-	-	-	45½ "	67.50
Winter Squash,	-	-	-	4 tons,	220.00
Lettuce,	-	-	-	4 bushels,	8.00
Beet Greens,	-	-	-	21 "	21.00
Radishes,	-	-	-	2½ "	5.00
Peppers,	-	-	-	3	6.00
Pie-plant,	-	-	-	460 lbs.	16.10
Melons,	-	-	-	915 "	13.72
Broom Brush,	-	-	-	550 "	66.00
Beef,	-	-	-	420 "	50.40
Veal,	-	-	-	100 "	12.00
Pork,	-	-	-	6257 "	750.84
Calves (sold),	-	-	-		93.64
Pigs (sold),	-	-	-		326.00
Rent of Pasture,	-	-	-		64.40
Cabbages,	-	-	-	4,500	225.00
Apples,	-	-	-	32 bbls.	80.00
Cider,	-	-	-	34 "	102.00
Milk (grass fed),	-	-	-	12,320 qts.	985.60

Wood,	-	-	-	6 cords	30.00
Straw,	-	-	-	15 tons,	375.00
Celery,					75.00
Total value,					<hr/> \$7,963.15

The weight of the hogs butchered is as follows:—411, 427, 405, 470, 395, 405, 432, 314, 297, 312, 417, 325, 385, 427, 398, 437. Total, 6257 lbs.

### *Financial Condition.*

Referring to the Steward's detailed statement which is herewith submitted, it will be seen that the Hospital received from all sources (including cash on hand and balance with Treasurer at the beginning of the year) the sum of \$62,139.16, and that the total expenditures for the support of the Institution during the same period amounted to \$61,028.90, leaving a balance in our favor of \$1110.26.

Your Superintendent is fully convinced that the regular Hospital revenue will be sufficient to meet all the wants of the Institution so long as provisions and other necessary articles remain at present prices.

I find in the last Annual Report of the Minnesota Hospital for the Insane the following table of expenses of several hospitals showing the weekly cost in each and the average in all.

Pennsylvania Hospital for Insane, Phila.,	-	-	-	\$8.68
Government Hospital, Washington, D. C.,	-	-	-	7.88
Northern Ohio, Newberg, O.,	-	-	-	7.17
Nashville Hospital, Tenn.,	-	-	-	6.40
Longview, Hamilton County, O.,	-	-	-	5.98



Illinois Hospital, Jacksonville,	-	-	-	-	-	5.87
Southern Ohio, Dayton, O.,	-	-	-	-	-	5.61
New York State Asylum, Utica,	-	-	-	-	-	5.53
West Virginia Hospital, Weston,	-	-	-	-	-	5.42
Central Ohio, Columbus,	-	-	-	-	-	4.80
Northampton Hospital, Mass.,	-	-	-	-	-	4.78
Dixmont Hospital, Pittsburg,	-	-	-	-	-	4.57
Wisconsin Hospital, Madison,	-	-	-	-	-	4.48
Pennsylvania State Hospital, Harrisburg,	-	-	-	-	-	4.38
Staunton Asylum, Virginia,	-	-	-	-	-	4.30
Eastern Kentucky, Lexington,	-	-	-	-	-	4.13
Average weekly cost,	-	-	-	-	-	\$5.65

### *Acknowledgements.*

We have received the following Newspapers and Magazines during the year, for which we are under renewed obligations:

Hartford Daily Courant,	Hartford, Conn.
“ Evening Post,	“ “
“ Weekly Times,	“ “
The Religious Herald,	“ “
Conn. General Advertiser,	“ “
New Haven Evening Register,	New Haven, “
“ “ Morning Journal and Courier,	“ “ “
“ “ Weekly Palladium,	“ “ “
Loomis’ Musical Journal,	“ “ “
The Constitution,	Middletown, “
Sentinel and Witness,	“ “
Norwich Daily Advertiser,	Norwich, “
“ Weekly Courier,	“ “
Norwalk Weekly Gazette,	Norwalk, “
The Bridgeport Republican and Standard,	Bridgeport, “
Meriden Daily Republican,	Meriden, “
Westport Advertiser,	Westport, “
Windham County Transcript,	
Litchfield Inquirer,	Litchfield, “

Forney's Weekly Press,	Philadelphia, Pa.
New York Semi-weekly Times,	New York City.
Watson's Art Journal,	" " "
Illustrated Christian Weekly,	" " "
American Messenger,	American Tract Society.
Moore's Musical Record,	Manchester, N. H.
The Galaxy,	New York.
The Hearth and Home,	" "
The Atlantic,	Boston, Mass.
Godey's Lady's Book,	Phila., Pa.

The many contributions of various kinds received during the year indicate an increasing disposition on the part of the public to interest themselves in this benevolent work :

From Hon. Robbins Battell one hundred and fifty dollars, "to be used as most needed for the amusement and entertainment of patients;" fifteen dollars from "a lady friend" to purchase trees; plants, flowers and flower stands from Mrs. Benjamin Douglas; a large basket of grapes from Mrs. Henry G. Hubbard; also from Rev. Mr. Thorne a basket of pears and packages of papers; several books from Mrs. Samuel C. Hubbard, Miss Russell and M. B. Copeland; a parlor croquet board from Miss Fellowes; a complete file of the London Illustrated News for the year 1870, from Mrs. Fellowes; Circular No. 4, 1870 from the Surg. Gen. U. S. Army; valuable public documents from Hon. S. W. Kellogg, M. C.; several fine steel plate engravings from J. W. Bradley, Esq., Phila. Pa.; regular files of California papers from William Shew, Esq., of San

Francisco; illustrated papers and magazines and the "New York Daily Sun" from Mr. C. E. Putnam.

In addition to the above, a fund has been contributed recently, by sixty individuals each donating five dollars, to which we hope to add enough to purchase a large Stereopticon with suitable slides, and several hundred books for our library.

We are indebted to a number of ladies and gentlemen in Middletown and to Mr. Parsons and friends of New Britain for two delightful musical entertainments; also to Prof. Hibbard for one of his inimitable readings, which was universally enjoyed by our patients.

To the several clergymen of this vicinity who have kindly conducted our chapel services throughout the year, we owe a peculiar debt, not in our power to cancel. The most that I can do, I do cheerfully, and that is to make this public acknowledgment of their services.

I cannot close this imperfect report of the past year without once more expressing the deep obligation I am under to those who are associated with me in this arduous work, for their continued and efficient services.

No changes have occurred among the officers and but few among the attendants and other employed persons. I am sometimes surprised at this when I remember what a laborious and peculiarly trying life is allotted to all those who devote themselves to the

care of the insane. It is in your power, gentlemen. to lighten these burdens in the future as you have done in the past by your constant support and encouragement, manifested by frequent visits to the Institution, and the personal interest you take in the welfare of those who are committed to its care.

Respectfully submitted,

ABRAM MARVIN SHEW,

*Superintendent.*

Middletown, Conn., March 31, 1871.





# PATHOLOGIST'S REPORT

## OF TWO CASES.

### CASE I—DEMENTIA—CHRONIC CHOREA—ATROPHY OF ANTERIOR LOBES OF CEREBRUM.

*M. W., Æt. 69—Conn.,—Widow ; was admitted July 20th, 1869.*—“No history furnished with patient, except that she has been living several years at the almshouse. She has violent choreic movements which are general ; is free from them during sleep ; has confused delusions respecting persons whom she meets ; imagines that the attendants and physicians are old friends.

*Jan. 5th, 1870 :—*No change ; general health fair.

*March 1st.*—Has lost flesh lately ; otherwise no change.

*June 1st.*—Emaciation still going on ; failing gradually.

*July 1st.*—Still failing.

“ 3d.—Patient has an acute attack of diarrhœa ; refuses all remedies except stimulants.

*Aug. 30th.*—Is rather better ; slight conjunctivitis ; ordered a wash of sulphate of zinc and atropia.”

*Examination Aug. 4th.* The patient presents ordinary choreic movements of the chronic type. Speech considerably interfered with in respect to articulation ; age, loss of teeth, and chorea together causing this. Psychically she exhibits no positive mental aberration except violent temper. However a considerable degree of dementia is present.

*Sept. 12th.*—At 6 o'clock P. M. died, of asthenia apparently. Autopsy. Body opened twenty-four hours after death ; weather cool ; body in a good state of preservation. Rigor mortis moderate. Body very long and extremely emaciated. No eruption on skin. There are many bruises and scratches on legs and arms inflicted by patient. The mammary arter-

ies are visible as they run in a very tortuous manner from the intercostal space to the atrophied breasts; they (the arteries), feel like wire to the touch. In anterior part of thighs, and inner part of arms, a similar state of the small arteries may be felt. On turning the body over on its face, three pints of ill-smelling, bloody liquid escaped from the mouth.

*Spine and Contents.* Great dryness and fragility of vertebrae. No congestion of meningo—rachidian veins. Dura-mater normal throughout. The arachnoid presents a few very small calcareous opacities. Quantity of subarachnoid fluid small, barely an ounce (estimate). Cord appears healthy to naked eye externally, and on a section made at level of fifth Cervical nerve.

*Skull and Contents.*—Pericranium not injected, about normally adherent. No external lesion of skull. Considerable difficulty is experienced in removing skull-cap; explained by finding a very considerable hyperostosis of the inner table of the vertical part of the frontal bone. The lesion seems limited to this bone, although upon the inner table of the temporal, and the wings of the sphenoid there are a few isolated exostoses the size of a pea. The section in the frontal bone was made 40 mm. above the superior edge of orbits. At this level, at a point directly above the right eye the frontal bone measures 20 mm.; above left eye 17 mm.; in median line 15 mm.; in thickness the lesion ceases almost abruptly at the coronal suture. In the diseased parts the inner table is uneven and knobbed. The dura-mater lying over it is decidedly vascular, abnormally adherent everywhere; but exhibits no new formations. The right parietal bone about the center measures 9 mm., the left 8 mm. in thickness. The arachnoid is moderately infiltrated with fluid, which is somewhat opalescent near the vessels. At a point a little anterior to the fissure of Rolando on both sides, there is a roll of infiltrated arachnoid, corresponding to the place where commences the pressure of the diseased bone. No fluid, or exudation at base of brain, over cerebellum, or around medulla oblongata.

There is very marked flattening of the anterior lobes of the

cerebrum ; the 1st\* and 2d convolutions being most affected. There is no change in color, or consistence, nothing whatever abnormal, in compressed parts. Cerebrum weighs 31 oz. On careful examination no lesions are discovered except slight punctate injection of central white matter, and a gaping state of the vessels of the opto-striate bodies. No calcification of small arteries. Islands of Reil healthy. Each ventricle contains about one ounce of clear fluid. A small bony formation exists in arachnoid near inner ear of right fissure of Rolando. Cerebellum weighs 4.3 oz., and appears perfectly healthy. Medulla oblongata appears healthy, except that the floor of fourth ventricle is perhaps abnormally grayish and translucent near calamus.

*Thorax and Contents.*—Costal cartilages are not much calcified. Lungs do not collapse on exposure ; slight old adhesions in both pleural sacs, most marked about upper lobes. Lungs congested and œdematous, with a few patches of lobular pneumonia. At inner part of anterior border of right lower lobe, there is a small encysted abscess the size of a pea.

At a corresponding point in the left lung there is a cavity the size of an almond containing broken down lung tissue, not tubercular or gangrenous ; most probably a patch of lobular pneumonia.

The heart is of fair size, but its left ventricle is very thick, a good inch, and the interventricular septum measures three-quarters of an inch in thickness. Right heart is flabby. The cardiac muscle appears a little grayish, aorta calcified in spots near the heart ; valves not abnormal.

*Abdomen and Contents.*—Liver small, its surface slightly bronzed in spots ; texture healthy, gall bladder obliterated by calculi. A large one lies in *cul-de-sac*, the size of a dove's egg, white and beautifully crystalline on fracture. In a second pouch, near the obliterated duct are three smaller green-black calculi as large as pepper grains.

Stomach is large, (by mistake not opened.) Spleen healthy ; slightly lobulated. Kidneys small and pale, but healthy. Intestines normal, excepting the large which are

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\*Turner's classification.



extremely thin and translucent, containing a large number of scybalous masses. Mesenteric arteries are rigid and large. Cœliac axis is diminished one-half in caliber near its origin by hypertrophy of its coats. Abdominal aorta and branches calcified, dilated, and rendered irregular and tortuous. Just above the bifurcation there is a calcification which forms two-thirds of the circumference of the aorta. Excepting fibrous state of ovaries, the organs of generation are normal.

*Limbs.*—Removed portions of upper part of median and ulnar nerves, also of sciatic (right side); placed in chromic acid. Removed portions of right biceps, of right trapezius (clavicular portion;) placed in chromic acid. The muscles appear normal to naked eye.

CASE II.—CHRONIC MANIA—GRANULAR DEGENERATION OF VENTRICLES—CORTICAL SCLEROSIS OF CORD, ETC.

*S.—S. Æt. 43.—Conn.—Married—Stone Cutter. Admitted July 10, 1870—History.*—"First symptoms noticed two months ago. Had a slight 'fit,' which was followed by symptoms of sub-acute mania. He steadily grew worse, and became unmanageable at home, on account of violence toward family and others. At times has been rational, but most of the time incoherent; having delusions in regard to being a policeman, owning livery stable, etc. Previous to having this fit he was thought eccentric.

*Aug. 9th.*—Has had no active symptoms until to-day, when he became delirious, and required restraining in bed.

*Sept. 1st.*—Is up, and about now as usual; though he seems more stupid and irritable.

*Sept. 20th.*—Transferred to the 'excited ward' on account of a growing disposition to molest other patients. Imagines that they call him bad names, etc. Patient is somewhat deaf.

*Oct. 10th.*—General health failing, and taking tonics and stimulants. Soils clothing and bed.

*Nov. 1st.*—Did not seem to recognize his wife who visited him two or three days ago. Frequently suffers from colic.

*Nov. 11th.*—At 6 o'clock A. M., was discovered in a 'fit' by the attendant. The fit seems to be apoplectic. Has stertorous breathing; flushed countenance; pulse 132 and very strong,—carotid arteries beating violently; pupils contracted and not responding to light. No reflex movement of limbs produced by tickling feet. When first seen by attendant the arms were jerking. At 6 o'clock P. M., no material change. Has occasional spasms, movements of arms, spells of jerking and irregular breathing. Sweats profusely and passes large quantities of urine.

*Nov. 12th.*—A. M. Pulse not as strong. The paroxysms of irregular respiration continued through the night. No other change. Noon; breathing more regular; pulse better; pupils respond to light; he makes attempts to swallow. Ordered stimulants; is sensible to pain of pricking and pinching; right side apparently more sensitive than left. Temperature normal. 6 o'clock P. M., swallows whisky and water, though with some difficulty. Pulse 100.

*Nov. 13th.*—Apparently better. Takes milk punch and beef-tea with less difficulty in swallowing. Respiration more regular. 5 o'clock P. M., is about as in morning. "7 o'clock P. M., is reported in a dying condition. Death takes place at 9 o'clock P. M."

*Autopsy.*—Body examined twelve hours after death; weather cool. Rigor mortis moderate. Some hypostatic congestion of skin of back and limbs. Small bed-sore on sacrum.

*Spine and Contents.*—Fat next to dura-mater injected. But little fluid under arachnoid. Dura-mater and arachnoid appear perfectly healthy; there being a few filamentary adhesions between the two in the region of the cervical enlargement. On the anterior surface of the spinal canal, there is found a small tumor the size of a large pea, situated in the substance of the posterior common ligament, opposite the fibro-cartilage lying between the last dorsal and the first lumbar vertebræ. It pushes the dura-mater somewhat forward, but not enough to have produced any pressure on the cord. The tumor is fibro-cartilaginous. On making sections through different parts of the cord, no abnormal appearance is discernible to the naked eye, except the very unusual development of vessels in the gray matter and near the anterior fissure. Spinal cord is placed in Müller's fluid for transportation.

*Skull and Contents.*—Bones and dura-mater normal. Pacchionian bodies unusually numerous. The arachnoid is not perfectly transparent along vessels, but the milkiness is hardly pathological. A minute inspection of the entire external surface of the cerebrum fails to reveal any lesions. The pia mater everywhere peels off well. On section, the gray mat-



ter of the convolutions appears unusually dark. The *centrum ovale majus* is much injected. Opto-striate bodies normal.

The ventricles are the seat of a very interesting lesion. In the first place they are all considerably dilated, and contain a good deal of clear fluid. The floor of the lateral ventricles half way up the lateral boundary, appears granular and thickened. The granulations, easily seen and felt, appear translucent, pearl-like, and vary much in size, from a mere point to the bulk of the head of a small pin. On passing the finger over the diseased tissue it appears unusually firm. The third ventricle and infundibulum are considerably enlarged, and studded with granulations; the same being true of the aqueduct of Silvius. The foramina of Monro measure nearly one quarter inch in diameter, and the lesion involves them, as well as the *septum lacidum*. The roof of the ventricles is normal; and so are the choroid plexuses.

Cerebellum appears perfectly normal; but the valve of Vieussens is the seat of the granular degeneration above described. Medulla oblongata appears healthy to naked eye, except that floor of fourth ventricle to the apex of the calamus scriptorius exhibits the granular degeneration; though to a less degree than the lateral and third ventricles. The nerves at the base of brain appear normal.

*Thorax and Contents.*—Heart normal; contracted. Commencing atheroma of arch of aorta.

The lungs do not fully collapse on exposure. Left lung presents some recent adhesions of its lower part with costal pleura; no fluid. The lower lobe is hepatized, and presents a number of patches of commencing resolution; pieces sink in water. Lower part of upper lobe slightly congested; at apex there is a wrinkled cicatrix the size of an almond, underneath which lie a cretaceous mass as large as a pea, with tubercular granulations somewhat smaller, imbedded in the lung tissue around it, in a zone one inch in diameter. Right lung exhibits only extreme congestion and oedema of upper and lower lobes; the middle lobe being normal. No trace of tubercles in this lung.

*Abdomen and Contents.*—The stomach is the seat of consid-



orable ecchymosis along the lesser curvature, and there are traces of this in the large *cul-de-sac*.

Kidneys of usual size ; capsules peeling off normally. Cortical portion of right kidney is perhaps a little pale.

Liver, spleen, and intestines healthy. Some urine in bladder ; is not albuminous.

Although the cord appeared healthy to the naked eye, microscopical study revealed the existence of several lesions in and about it. In the first place, there were found evidences of chronic inflammation of the pia mater and of the outer portion of the spinal cord throughout its entire length, and all around it, constituting a cortical sclerosis. Secondly, it was found that the left anterior commissure of the cord was destroyed by a mass of newly formed connective tissue, in closing blood vessels, and by an effusion, in all probability hemorrhagic in character. The destruction of the commissure extended to the cervical enlargement for a distance of several inches.

Microscopic examination showed that the granular degeneration of the ventricles was due, in all probability, to an extension of the inflammatory action, involving primarily the sub-epithelial tissue, and the epithelium only in a secondary and subordinate way.

For details of these lesions, see a report of the case, with illustrations in the American Journal of the Medical Sciences, July, 1871.

Respectfully submitted,

E. C. SEGUIN, M. D.

58 West 26th Street, New York City,

March 31st, 1871.

TABLE I.  
MOVEMENT OF THE POPULATION.

	Males.	Females.	Total.
Number at the beginning of the year.....	114	118	232
Admitted in the year.....	49	26	75
Total present in the year.....	163	144	307
Discharged—Recovered.....	14	6	20
Improved.....	14	5	19
Stationary.....	4	4	8
Died.....	11	10	21
Remaining at the end of the year.....	120	119	239
Average present during the year.....	115.97	117.72	233.69

TABLE II.  
ADMISSIONS AND DISCHARGES FROM THE BEGINNING OF THE  
HOSPITAL.

	Males.	Females.	Total.
Admitted.....	292	185	477
Discharged—Recovered.....	66	22	88
Improved.....	*33	15	48
Stationary.....	†30	†15	45
Died.....	43	14	57

\* Of this number 10 were Inebriates.

† Not insane, 3 males and 1 female.

**TABLE III.**  
NUMBER AT EACH AGE WHEN ADMITTED IN THE YEAR.

AGE.	When Admitted.			When Attacked.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15.....	—	1	1	—	1	1
15—20.....	3	2	5	3	3	6
20—25.....	6	2	8	10	6	16
25—30.....	9	6	15	11	3	14
30—35.....	2	2	4	2	4	6
35—40.....	7	3	10	9	5	14
40—45.....	3	4	7	1	1	2
45—50.....	7	2	9	3	2	5
50—60.....	5	2	7	4	1	5
60—70.....	7	1	8	6	—	6
70—80.....	—	1	1	—	—	—
80 and over.....	—	—	—	—	—	—
Unknown.....	—	—	—	—	—	—
Total.....	49	26	75	49	26	75

**TABLE IV.**  
NUMBER AT EACH AGE FROM BEGINNING OF THE HOSPITAL.

AGE.	When Admitted.			When Attacked.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15.....	3	1	4	4	1	5
15 to 20.....	11	4	15	28	16	44
20 to 25.....	31	14	45	48	27	75
25 to 30.....	36	19	55	42	32	74
30 to 35.....	37	26	63	33	27	60
35 to 40.....	37	23	60	36	30	66
40 to 45.....	29	24	53	17	13	30
45 to 50.....	30	21	51	20	14	34
50 to 60.....	31	16	47	25	10	35
60 to 70.....	37	27	64	29	10	39
70 to 80.....	8	8	16	5	2	7
Over 80.....	2	1	3	2	1	3
Unknown.....	—	1	1	—	1	1
Not Insane.....	—	—	—	3	1	4
Total.....	292	185	477	292	185	477

TABLE V.  
NATIVITY OF PATIENTS ADMITTED.

NATIVITY.	Within the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
Connecticut.....	28	12	40	175	90	*265
New York.....	3	2	5	16	11	27
Massachusetts.....	—	—	—	8	3	11
Rhode Island.....	—	1	1	4	2	6
Pennsylvania.....	—	—	—	2	—	2
Canada.....	1	—	1	3	—	3
Germany.....	—	—	—	7	5	12
England.....	4	1	5	7	6	13
Ireland.....	10	10	20	59	61	120
Scotland.....	—	—	—	2	1	3
Italy.....	—	—	—	1	—	1
Virginia.....	—	—	—	1	1	2
North Carolina.....	—	—	—	1	—	1
Vermont.....	1	—	1	1	1	2
New Jersey.....	1	—	1	1	1	2
Cuba.....	—	—	—	—	1	1
Prussia.....	—	—	—	—	2	2
Florida.....	1	—	1	1	—	1
Unknown.....	—	—	—	3	—	3
Total.....	49	26	75	292	185	477

\* Five of this number are colored (1 a female) and one is an Indian.

TABLE VI.  
RESIDENCE OF PATIENTS ADMITTED

RESIDENCE.	Within the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
State at Large.....	1	—	1	1	2	3
Hartford County.....	11	5	16	82	38	120
New Haven County...	7	7	14	67	47	114
New London County..	6	5	11	39	32	71
Windham County....	2	2	4	5	4	9
Litchfield County....	2	—	2	15	14	29
Middlesex County....	10	2	12	37	16	53
Tolland County.....	2	1	3	6	5	11
Fairfield County.....	8	4	12	36	26	62
New York.....	—	—	—	3	1	4
Iowa.....	—	—	—	1	—	1
Total.....	49	26	75	292	185	*477

\* Of this number there were furnished by cities of 5,000 and more inhabitants, 219—males, 135 ; females, 84. Of the number admitted "Within the Year," (75) there were from cities, 30—males, 21 ; females, 9.



**TABLE VII.**  
**OCCUPATION OF THOSE ADMITTED.**

	Within the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total
Farmers—Female Members Farmer's Families...	15	7	22	76	52	128
Laborers—Female Members Laborer's Families..	9	1	10	39	23	62
Mechanics—Female Members Mechanics' Families	—	—	—	10	8	18
Shoemakers—Female Members Shoemakers' Families.....	—	—	—	5	1	6
Merchants—Female Members Merchants' Families	—	—	—	5	3	8
Quarrymen—Female Members Quarrymen's Families.....	3	—	3	6	2	8
Clergymen—Female Members of Clergymen's Families.....	—	—	—	1	1	2
Cigarmakers—Female Members Cigarmakers' Families.....	—	—	—	1	1	2
Conductors—Female Members Conductors' Families.....	—	—	—	—	1	1
Hatters—Female Members Hatters' Families....	—	—	—	—	2	2
Carpenters.....	—	—	—	11	—	11
Machinists.....	1	—	1	15	—	15
Harness Makers.....	—	—	—	4	—	4
Clerks.....	4	—	4	9	—	9
Painters.....	—	—	—	2	—	2
Pilots.....	—	—	—	3	—	3
Carmen.....	—	—	—	1	—	1
Blacksmiths.....	—	—	—	1	—	1
Druggists.....	—	—	—	4	—	4
Factory Employes.....	4	4	8	8	12	20
Lawyers.....	—	—	—	1	—	1
Cabinet Makers.....	3	—	3	4	—	4
Agents.....	—	—	—	3	—	3
Superintendent of Factory.....	1	—	1	2	—	2
Pump Makers.....	—	—	—	1	—	1
Shipping Merchants.....	—	—	—	1	—	1
Moulders.....	—	—	—	1	—	1
Barbers.....	—	—	—	2	—	2
Tinsmiths.....	—	—	—	3	—	3
Hostlers.....	1	—	1	4	—	4

## OCCUPATION OF THOSE ADMITTED (CONTINUED).

	Within the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
Landlords.....	—	—	—	1	—	1
Physicians.....	—	—	—	2	—	2
Tailors.....	1	—	1	2	—	2
Tailoresses.....	—	—	—	—	2	2
Waiters.....	—	—	—	2	—	2
Sailmakers.....	—	—	—	1	—	1
Carriagemakers.....	—	—	—	2	—	2
Students.....	—	—	—	1	4	5
Glass Cutters.....	—	—	—	1	—	1
Truss-makers.....	—	—	—	1	—	1
Commercial Travelers.....	—	—	—	2	—	2
Telegraph Operators.....	—	—	—	1	—	1
Printers.....	—	—	—	1	—	1
Paper Makers.....	—	—	—	1	—	1
Accountants.....	—	—	—	3	—	3
Silver Plate Manufacturer.....	—	—	—	1	—	1
Electro-platers.....	—	—	—	1	—	1
Teachers.....	—	1	1	2	8	10
Grocers.....	—	—	—	1	—	1
Curriers.....	—	—	—	1	—	1
Chemists.....	—	—	—	1	—	1
Newsboys.....	—	—	—	1	—	1
Brush-makers.....	1	—	1	2	—	2
Stone Masons.....	1	—	1	1	—	1
Night Watchmen.....	1	—	1	1	—	1
Seamstresses.....	—	3	3	—	8	8
Domestics.....	—	6	6	—	33	33
Clock-makers.....	1	—	1	1	—	1
Millers.....	1	—	1	1	—	1
Housekeepers.....	—	2	2	—	2	2
Sailors.....	—	—	—	5	—	5
Artists.....	1	—	1	1	—	1
No Employment.....	1	1	2	25	1	26
Unknown.....	—	1	1	3	21	24
Total.....	49	26	75	292	185	477

TABLE VIII.

## CIVIL CONDITION OF THOSE ADMITTED.

	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
Single.....	23	18	41	148	75	223
Married.....	26	5	31	115	56	171
Widowed.....	—	2	2	23	32	55
Divorced.....	—	1	1	—	3	3
Unknown.....	—	—	—	6	19	25
Total.....	49	26	75	292	185	477

TABLE IX.

## HOW COMMITTED.

	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
By Friends.....	2	—	2	33	8	41
Probate Judges.....	45	25	70	252	174	426
Judges Superior Court	1	1	1	2	1	3
Governor's Order.....	1	—	1	5	2	7
Total.....	49	26	75	292	185	477

TABLE X.

## HOW SUPPORTED OF THOSE ADMITTED.

	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
By Self or Family....	4	—	4	36	8	44
By State Alone.....	1	—	1	5	2	7
By State and Town...	28	18	46	190	124	314
By State and Family..	16	8	24	61	51	112
Total.....	49	26	75	292	185	477

TABLE XI.  
FORM OF DISEASE IN THOSE ADMITTED.

	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
Mania, Acute.....	16	3	19	54	28	82
Mania, Chronic.....	14	14	28	100	89	189
Mania, Epileptic ....	—	2	2	12	7	19
Mania, Puerperal.....	—	—	—	—	2	2
Mania, Suicidal.....	—	—	—	3	2	5
Mania, Homicidal....	—	—	—	2	1	3
Mania, Periodical.....	1	—	1	2	1	3
Nymphomania.....	—	1	1	—	3	3
Satyriasis.....	1	—	1	1	—	1
Delirium.....	3	—	3	3	—	3
Monomania.....	—	—	—	13	4	17
Melancholia, Acute...	5	2	7	15	10	25
Melancholia, Chronic.	2	1	3	14	8	22
Melancholia, Attonita.	—	1	1	1	1	2
General Paresis.....	1	—	1	5	—	5
Methomania (or Inebri- ates.....	4	—	4	18	—	18
Dementia, Acute.....	—	1	1	7	1	8
Dementia, Chronic...	—	—	—	18	20	38
Dementia, Senile.....	1	—	1	11	5	16
Imbecility.....	1	1	2	10	2	12
Not Insane.....	—	—	—	3	1	4
Total.....	49	26	75	292	185	477

TABLE XII.  
COMPLICATIONS IN THOSE ADMITTED.

	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
Aphasia.....	—	—	—	1	—	1
Apoplectic.....	1	—	1	3	—	3
Chorea.....	—	—	—	1	1	2
Hemiplegia.....	—	—	—	1	1	2
Paraplegia.....	—	—	—	1	1	2
Paralysis Agitans.....	—	—	—	—	1	1
Pseudo-hypertrophic ..	—	—	—	—	—	—
Paralysis.....	—	—	—	—	1	1
Prog. Musc'r Atrophy.	—	—	—	—	1	1
Hereditary.....	14	8	22	50	31	81



**TABLE XIII.**  
**NUMBER OF ATTACKS IN THOSE ADMITTED.**

	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
First.....	30	18	48	188	116	304
Second.....	8	2	10	39	24	63
Third.....	4	3	7	10	11	21
Fourth.....	3	1	4	5	4	9
Fifth.....	1	—	1	3	1	4
Sixth.....	1	—	1	2	1	3
Seventh.....	—	—	—	—	1	1
Eighth.....	—	—	—	—	—	—
"Several".....	—	—	—	23	9	32
Unknown.....	2	2	4	19	17	36
Not Insane.....	—	—	—	3	1	4
Total.....	49	26	75	292	185	477

**TABLE XIV.**  
**DURATION OF INSANITY BEFORE ENTRANCE OF THOSE AD-**  
**MITTED.**

	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
Less than 1 month. .	8	1	9	23	6	29
1 to 3 months.....	10	5	15	70	18	88
3 to 6 months.....	7	2	9	20	8	28
6 to 9 months.....	6	4	10	18	7	25
9 to 12 months.....	2	—	2	6	2	8
12 to 18 months.....	3	1	4	12	10	22
18 to 24 months.....	3	2	5	15	10	25
2 to 3 years.....	2	2	4	27	20	47
3 to 4 years.....	1	1	2	9	5	14
4 to 5 years.....	—	—	—	7	12	19
5 to 10 years.....	2	5	7	22	17	39
10 to 15 years.....	—	—	—	20	12	32
15 to 20 years.....	—	1	1	8	12	20
20 to 25 years.....	2	1	3	7	4	11
25 to 30 years.....	1	—	1	4	—	4
Over 30 years.....	1	1	2	2	9	11
Unknown.....	1	—	1	19	32	51
Not Insane.....	—	—	—	3	1	4
Total.....	49	26	75	292	185	477

TABLE XV.

RECOVERED OF THOSE ATTACKED AT THE SEVERAL AGES  
FROM THE BEGINNING.

Age When Attacked.	Number.			Per Cent. Recovered of those Attacked at each Age.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15. ....	4	1	5	—	—	—
15 to 20.....	28	16	44	21.42	12.5	18.18
20 to 25.....	48	27	75	14.58	7.40	12
25 to 30.....	42	32	74	16.66	12.5	14.86
30 to 35 .....	33	27	60	27.27	14.81	23.33
35 to 40.....	36	30	66	22.22	13.33	18.18
40 to 45.....	17	13	30	29.41	15.38	23.33
45 to 50.....	20	14	34	20	14.25	17.64
50 to 60.....	25	10	35	34.45	10	31.42
60 to 70.....	29	10	39	12	—	7.69
70 to 80.....	5	2	7	—	—	—
70 and over.....	2	1	3	—	—	—
Unknown .....	—	1	1	—	—	—
Not Insane. ....	3	1	4	—	—	—
Total.....	292	185	477	—	—	—

TABLE XVI.

RECOVERED AFTER VARIOUS DURATIONS OF DISEASE BE-  
FORE TREATMENT FROM THE BEGINNING.

Duration of Disease before Admission.	Number.			Per Cent. Recoverd after each Period of Duration.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month.....	23	6	29	95.78	88.33	93.10
1 to 3 months.....	70	18	88	34.28	44.44	36.36
3 to 6 months.....	20	8	28	45	50	46.42
6 to 9 months.....	18	7	25	22.22	28.57	24
9 to 12 months.....	6	2	8	33.33	50	37.49
12 to 18 months.....	12	10	22	16.66	10	13.63
18 to 24 months.....	15	10	25	13.33	10	12
2 to 3 years.....	27	20	47	3.70	—	2.12
3 to 4 years.....	9	5	14	—	—	—
4 to 5 years.....	7	12	19	—	—	—
5 to 10 years.....	22	17	39	—	—	—
Over 10 years.....	60	69	129	—	—	—
Not Insane.....	3	1	4	—	—	—

TABLE XVII.

DURATION OF TREATMENT OF THOSE RECOVERED FROM  
THE BEGINNING.

Duration.	Number Recovered.		
	Males.	Females.	Total.
Under 1 month.....	14	2	16
1 to 2 months.....	17	4	21
2 to 3 months.....	13	2	15
3 to 6 months.....	8	6	14
6 to 9 months.....	7	4	11
9 to 12 months.....	4	—	4
12 to 18 months.....	3	4	7
18 to 24 months.....	—	—	—
2 to 3 years.....	—	—	—
3 to 4 years.....	—	—	—
4 to 5 years.....	—	—	—
Over 5 years.....	—	—	—
Unknown.....	—	—	—
Total.....	66	22	88
Average duration of treatment of all.....	4.54 mos.	7.27 mos.	5.22 mos.

TABLE XVIII.

WHOLE DURATION OF DISEASE OF THOSE RECOVERED FROM  
THE BEGINNING.

Duration.	Number Recovered.		
	Males.	Females.	Total.
Under 1 month.....	20	7	27
1 to 2 months.....	21	9	30
2 to 3 months.....	5	1	6
3 to 6 months.....	8	1	9
6 to 9 months.....	2	1	3
9 to 12 months.....	2	1	3
12 to 18 months.....	2	1	3
18 to 24 months.....	3	—	3
2 to 3 years.....	1	—	1
3 to 4 years.....	2	1	3
4 to 5 years.....	—	—	—
Over 5 years.....	—	—	—
Unknown.....	—	—	—
Total.....	66	22	88
Average duration of all.....	6.16 mos.	5.5 mos.	6 mos.

TABLE XIX.

FORM OF DISEASE OF THOSE RECOVERED FROM THE BEGINNING.

Form of Disease.	Number Recovered.			Per Cent. Recovered of each form Admitted.		
	Males.	Females.	Total.	Males.	Females.	Total.
Mania, Acute.....	40	15	55	74.07	53.57	67.07
Mania, Chronic.....	1	1	2	1.	1.12	1.05
Mania, Suicidal.....	—	1	1	—	50.	20.
Mania, Puerperal....	—	2	2	—	100.	100.
Mania, Epileptic.....	1	—	1	8.33	—	5.26
Delirium.....	3	—	3	100.	—	100
Monomania.....	4	1	5	30.76	25.	29.41
Methomania.....	7	—	7	38.88	—	38.88
Nymphomania.....	—	1	1	—	33.33	33.33
Melancholia, Acute..	10	1	11	66.66	10.	44.
Total of all admitted.	66	22	88	22.60	11.89	18.44

TABLE XX.

CAUSES (EXCITING) OF DISEASE OF THOSE RECOVERED FROM THE BEGINNING.

Form of Disease.	Number Recovered.			Per Cent. recovered of each cause admitted.		
	Males.	Females.	Total.	Males.	Females.	Total.
Ill health.....	8	5	13	57.14	27.77	40.62
Intemperance.....	26	1	27	76.47	50.	75.
Masturbation.....	2	—	2	18.18	—	16.66
Excessive Venery....	2	—	2	100.	—	100.
Tobacco.....	2	—	2	66.66	—	66.76
Connected with the affections.....	2	1	3	40.	14.27	25.
Connected with fluctuations of fortune...	—	—	—	—	—	—
Connected with poverty or privations.....	—	—	—	—	—	—
Connected with religion.....	2	1	3	25.	25.	25.
Over-study.....	—	2	2	—	40.	18.18
Business anxiety....	3	1	4	25.	10.	18.18
Nervous shock.....	—	2	2	—	50.	40.
Epilepsy.....	1	—	1	8.33	—	5.26
Puerperal.....	—	2	2	—	33.33	33.33
Unknown.....	18	7	25	15.	7.95	12.11
Total of all admitted.	66	22	88	22.60	11.89	18.44



TABLE XXI.

NATIVITY OF THOSE RECOVERED FROM THE BEGINNING.

Country.	Number Recovered.			Per Cent. Recovered of each class admitted.		
	Males.	Females.	Total.	Males.	Females.	Total.
United States—White.	49	13	62	23.55	12.03	19.62
United States—Col'd.	2	1	3	50	100	60
United States—Indian	—	—	—	—	—	—
England.....	2	—	2	28.57	—	15.38
Ireland.....	8	7	15	13.35	11.47	12.05
Germany.....	4	1	5	57.14	20	41.66
Italy.....	1	—	1	100	—	100

TABLE XXII.

DEATH AND THE CAUSES.

CAUSES.	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
Mania, exhaustion from....	4	1	5	12	2	14
Diarrhœa, exhaustion from.....	—	—	—	1	—	1
Carbuncle, exhaustion from.....	—	—	—	1	—	1
Scirrhus of Breast....	—	1	1	—	1	1
Scirrhus of Stomach..	—	—	—	1	—	1
Consumption .....	—	1	1	5	1	6
Pneumonia.....	2	1	3	3	1	4
Senile decay.....	1	2	3	5	2	7
Apoplexy .....	—	—	—	3	—	3
Inanition.....	1	1	2	3	2	5
General Paresis.....	2	—	2	4	—	4
Violence .....	—	—	—	—	1	1
Strangulation.....	—	—	—	3	—	3
Shock from injuries...	—	1	1	—	1	1
Undetermined.....	1	2	3	2	3	5
Total.....	11	10	21	43	14	57

TABLE XXIII.

AGES AT DEATH.

AGE.	In the Year.			From the Beginning.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15.....	—	—	—	—	—	—
15 to 20.....	—	—	—	—	—	—
20 to 25.....	—	1	1	3	1	4
25 to 30.....	1	—	1	5	—	5
30 to 35.....	—	1	1	1	1	2
35 to 40.....	4	2	6	9	2	11
40 to 45.....	1	—	1	3	2	5
45 to 50.....	2	2	4	6	2	8
50 to 60.....	1	—	1	6	1	7
60 to 70.....	1	1	2	5	2	7
70 to 80.....	—	2	2	4	2	6
80 to 90.....	1	1	2	1	1	2
Over 90.....	—	—	—	—	—	—
Total.....	11	10	21	43	14	57

TABLE XXIV.

RATIO OF DEATHS FROM THE BEGINNING.

PER CENT.	Males.	Females.	Total.
Of all admitted.....	14.72	7.56	11.94
Of average number in hospital.....	—	—	—

TABLE XXV.

DURATION OF DISEASE OF THOSE WHO DIED FROM THE BEGINNING.

DURATION.	From admission into Hospital.			From the Attack.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month.....	7	1	8	—	—	—
1 to 2 months.....	4	1	5	3	1	4
2 to 3 months.....	7	—	7	5	—	5
3 to 6 months.....	6	3	9	4	1	5
6 to 9 months.....	8	1	9	4	1	5
9 to 12 months.....	3	1	4	2	1	3
12 to 18 months.....	4	5	9	3	1	4
18 to 24 months.....	2	—	2	3	1	4
2 to 3 years.....	2	2	4	1	1	2
3 to 4 years.....	—	—	—	3	1	4
4 to 5 years.....	—	—	—	2	1	3
5 to 10 years.....	—	—	—	2	1	3
10 to 15 years.....	—	—	—	6	2	8
15 to 20 years.....	—	—	—	3	1	4
20 to 25 years.....	—	—	—	—	1	1
25 to 30 years.....	—	—	—	—	—	—
30 to 35 years.....	—	—	—	1	—	1
35 to 40 years.....	—	—	—	—	—	—
40 to 45 years.....	—	—	—	1	—	1
Average of all.....	8.65 mos.	14.57 ms.	10.10 ms.	6.84 yrs.	7.35 yrs.	6.89 yrs.

TABLE XXVI.

REMAINING IN HOSPITAL AT END OF THE YEAR.

AGE.	Males.	Females.	Total.
Under 15.....	1	1	2
15 to 20.....	3	1	4
20 to 25.....	5	5	10
25 to 30.....	13	10	23
30 to 35.....	21	18	39
35 to 40.....	14	21	35
40 to 45.....	11	19	30
45 to 50.....	11	10	21
50 to 60.....	16	17	33
60 to 70.....	18	11	29
70 to 80.....	5	5	10
80 to 90.....	1	—	1
Over 90.....	—	—	—
Total.....	119	118	237

TABLE XXVII.

REMAINING AT THE END OF THE YEAR—DURATION OF  
DISEASE.

	Since entering the Hospital.			Since the Attack.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month.....	2	3	5	—	—	—
1 to 2 months.....	4	2	6	—	—	—
2 to 3 months.....	3	—	3	—	—	—
3 to 6 months.....	5	5	10	4	1	5
6 to 12 months.....	11	10	21	8	1	9
12 to 18 months.....	13	7	20	5	3	8
18 to 24 months.....	13	21	34	9	6	15
2 to 3 years.....	68	70	138	15	11	26
3 to 5 years.....	—	—	—	18	13	31
5 to 10 years.....	—	—	—	26	38	64
10 to 15 years.....	—	—	—	16	20	36
15 to 20 years.....	—	—	—	8	11	19
20 to 25 years.....	—	—	—	7	5	12
25 to 30 years.....	—	—	—	3	2	5
30 to 40 years.....	—	—	—	—	5	5
Over 40 years.....	—	—	—	—	2	2
Total.....	119	118	237	119	118	237

TABLE XXVIII.

REMAINING AT THE END OF THE YEAR—PROSPECT.

	Males.	Females.	Total.
Curable.....	20	7	27
Incurable.....	99	111	210
Total.....	119	118	237



TABLE XXIX.

OPERATIONS OF THE HOSPITAL FROM THE BEGINNING IN  
EACH YEAR.

	1868-9.	1869-70.	1870-1.	Total.
<i>Admitted</i> —Males,.....	165	78	49	292
Females,.....	103	56	26	185
Total,.....	268	134	75	477
<i>Discharged</i> —Recov'd—Males,.....	25	27	14	66
“      Females,.....	—	16	6	22
Total,.....	25	43	20	88
Imp.—Males,.....	11	8	14	33
“      Females,.....	—	10	5	15
Stationary—Males,.....	6	17	4	27
“      Females,....	—	10	4	14
Not Insane—Males,....	2	1	—	3
“      Females,....	—	1	—	1
<i>Died</i> —Males,.....	14	18	11	43
Females,.....	1	3	10	14
Total,.....	15	21	21	57
Whole Number in the Year,.....	268	343	307	
Average Number in the Year,.....	94.15	225.27	233.69	
Number at the End of the Year,....	209	232	239	—

TABLE XXX.

RATIO PER CENT. IN EACH YEAR.

Per Cent.	1868-9.	1869-70.	1870-1.	Total.
<i>Recov'd</i> of all cases adm'ted under 1 yr.	25.	57.38	46.15	40.42
One year and over,.....	2.17	8.69	5.55	4.15
All discharged, (including deaths)	42.37	38.73	28.98	36.82
<i>Admissions</i> from causes :				
Ill health from various,.....	13.43	11.94	14.66	13.20
Intemperance,.....	4.48	9.70	14.66	7.54
Masturbation & Excessive Venery	4.10	0.74	—	2.51
Connected with the Affections,...	3.35	1.49	1.33	2.51
“      “      Property,.....	—	1.49	—	0.44
“      “      Religion,.....	2.23	2.23	1.33	2.30
Over Study and Anxiety of Mind,	3.73	3.73	6.66	4.42
Epilepsy,.....	2.98	3.73	2.66	3.98
Apoplexy,.....	0.37	0.74	—	0.41
Acute Meningitis,.....	0.37	—	0.62	0.62
Puerperal,.....	1.49	1.49	—	1.25
Unknown,.....	63.05	62.68	53.33	61.63
<i>Deaths</i> of all under care,.....	5.59	6.12	6.84	
<i>Deaths</i> of average number in Hospital	15.93	9.32	8.98	—

TABLE XXXI.\*

## EMPLOYMENT OF PATIENTS IN THE YEAR

## MALES.

Sphere of Occupation.	Number of Days and Parts of Days' Labor.												
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Farm & Garden													
Grounds,. . . . .													
House,. . . . .													
Stable, &c.,. . . .													
Total, . . . .													

## FEMALES.

Kitchen, . . . . .													
Laundry, . . . .													
Sewing Room,													
House Work, . .													
Total.													
No. of men working at any time, . .													
No. of women working at any time, . .													
Per cent. of the whole work- at any time, .													
Males, . . . . .													
Females, . . . .													

\* Our Labor Report for the year being imperfect, we omit this table.

TABLE XXXII.

OFFICERS, ATTENDANTS, AND OTHERS EMPLOYED.

Position.	Salaries and Wages.	
	Per Year.	Per Month.
Superintendent, .....	\$2000.	\$166.66
Assistant Physician, .....	1000.	83.34
Steward, .....	600.	50.00
Matron, .....	400.	33.33
Assistant Matron, .....	300.	25.00
Treasurer, .....	400.	33.34
Farmer, .....	600.	50.00
Attendants, Male, .....	300.	25.00
"    Female, .....	180.	15.00
Night Watch, Male, .....	300.	25.00
"    Female, .....	180.	15.00
Engineer, .....	900.*	75.00
Fireman, .....	360.	30.00

\* Boards himself.

TABLE XXXIII.

FINANCIAL HISTORY.

Year.	Whole Cost of Supporting the Hospital.	Average Number of Patients.	Average Cost of Each Patient.	
			Per Year.	Per Week.
1870-1.*	\$61,028.90	233.69	\$261.11	\$5.02 †

\* The Hospital year begins April 1st.

† This includes clothing.

## TREASURER'S REPORT.

The following statement of the fiscal concerns of "The General Hospital for the Insane, of the State of Connecticut," for the year commencing April 1st, 1870, and ending March 31st, 1871, is respectfully submitted to the Board of Trustees :

### RECEIPTS.

Balance in the Treasurer's hands, April 1st, 1870,	-	\$ 2,851.35
Revenue Account from the Hospital,	- - -	61,419.65
Amount Received from Conn. Valley Railroad Company,		3,500.00
		\$67,771.00

### PAYMENTS.

Amount of Superintendent's Orders,	- - -	\$63,883.15
Amount Paid on Notes Signed by Members of the Board,		3,000.00
Balance in the Treasurer's hands, March 31st, 1871,	.	887.85
		\$67,771.00

All of which is respectfully submitted.

M. B. COPELAND,  
TREASURER.

MIDDLETOWN, CONN., March 31, 1871.

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We hereby certify, that we have examined the vouchers and accounts of the Treasurer, of which the above is an abstract, and find them correct.

BENJ. DOUGLAS,      }  
JOSEPH CUMMINGS,    } *Auditors.*

MIDDLETOWN, CONN., April 15th, 1871.



J. D. ATHERTON, Steward, in account with The General Hospital  
for Insane.

1870.	DR.	
April 1st, To Balance in Bank,.....	\$	9.69
“ 1st, To Cash on hand,.....		209.82
1871.		
March 31st, To Cash Received as Revenue, (deposited with Treasurer,).....		61,419.65
To Cash from Valley Railroad Company, for fencing purposes,.....		500.00
		<hr/>
		\$62,139.16

1870.	CR.	
April, By Vouchers,.....	\$	4,780.44
May, “ .....		4,679.23
June, “ .....		4,963.61
July, “ .....		5,984.73
August, “ .....		4,955.06
September, “ .....		4,566.31
October, “ .....		5,839.48
November, “ .....		5,684.62
December, “ .....		4,850.53
1871.		
January, “ .....		6,700.23
February, “ .....		4,883.63
March, “ .....		3,141.03
		<hr/>
Balance in Bank, .....		887.85
Cash on hand,.....		222.41
		<hr/>
		\$62,139.16

# ABSTRACT OF VOUCHERS FOR THE YEAR ENDING MARCH 31st, 1871.

MONTH.	Salaries of Officers and Pay of Employees.	Furniture and Fixtures.	Fuel and Lights.	Dry Goods and Clothing.	Stationery and Postage.	Provision.	Fish.	Flour.	Meat.	Groceries.	Farm and Garden, Tools, Stock, &c.	Building and Repairs.	Freight.	Trustee's expenses.	Interest.	Burial expenses.	Medical Stores.	Miscellaneous.	Total.
April, 1870...	\$1,484.20	\$4.55	\$941.68	\$203.50	\$32.90	\$147.65	.....	\$127.70	\$364.86	\$624.17	\$527.50	\$24.40	\$15.15	\$53.65	.....	.....	\$90.37	\$188.16	\$4,780.44
May, " ...	1,459.08	147.98	976.86	64.63	24.52	44.55	.....	176.15	616.02	551.36	17.89	47.66	308.26	150.00	.....	.....	26.66	67.66	4,679.23
June, " ...	1,435.47	.....	941.75	291.65	33.68	67.26	.....	730.53	496.20	434.90	113.85	250.87	24.10	.....	.....	.....	6.97	136.38	4,963.61
July, " ...	1,237.32	232.13	1,407.57	530.86	48.66	98.44	265.47	146.33	.....	483.76	525.37	882.30	41.05	.....	.....	.....	.....	85.47	5,984.73
August, " ...	1,462.54	459.60	494.42	22.30	18.46	215.30	.....	344.10	707.37	373.57	197.60	592.04	.....	.....	.....	.....	13.06	54.70	4,955.06
Sept., " ...	1,561.43	170.87	242.59	78.70	14.88	347.98	.....	140.13	558.98	187.07	76.14	589.57	25.79	.....	\$420.00	.....	75.34	76.84	4,566.31
October, " ...	1,573.75	.....	1,098.41	370.71	17.70	227.51	155.64	205.00	528.81	617.65	154.85	47.86	84.08	.....	455.00	.....	158.14	144.37	5,839.48
Nov., " ...	1,519.62	37.10	108.25	19.75	19.70	532.02	144.91	323.25	1,394.29	430.52	57.31	888.75	7.65	.....	.....	122.75	12.10	63.62	5,684.62
Dec., " ...	1,484.39	66.51	116.00	217.77	44.36	955.66	.....	644.64	513.60	90.54	296.66	101.69	127.88	.....	.....	.....	26.65	164.18	4,850.53
Jan., 1871...	1,582.70	228.38	920.01	743.33	102.93	762.40	134.28	256.30	.....	936.07	66.49	568.57	239.53	.....	.....	.....	135.63	23.61	6,700.23
Feb., " ...	1,477.48	.....	.....	824.00	19.60	863.09	85.58	232.48	314.45	210.42	193.46	466.79	17.63	.....	.....	37.85	.....	140.80	4,883.63
March, " ...	1,461.97	180.03	35.70	54.16	18.00	5.10	.....	.....	160.58	211.28	329.10	64.40	9.32	.....	420.00	45.60	17.50	128.29	3,141.03
	\$17,739.90	1,527.15	7,283.24	3,421.36	395.39	4,266.96	785.91	3,326.61	5,655.16	5,151.31	2,556.22	4,524.90	900.44	203.65	1,295.00	206.20	562.42	1,227.08	\$61,028.90



# APPENDIX.

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## ADMISSION OF PATIENTS.

1. Whenever a patient is sent to the Hospital by the order of the Probate Court, the order or warrant, or a copy thereof, by which such a person is sent, shall be lodged with the Superintendent.

2. Each patient, before admission, shall be made perfectly clean, and be free from vermin, or any contagious or infectious disease.

3. Each male patient shall be provided with at least two shirts, one woolen coat, one woolen vest, one pair of woolen pantaloons; two pairs new socks; one pair new shoes or boots, and one comfortable outside garment.

Each female patient shall, in addition to a quantity of under clothing, shoes and stockings corresponding to that required for the male patient, have one flannel petticoat, two good dresses, one cloak or other good outside garment. Extra and better apparel is very desirable for chapel worship and out of doors exercise and riding.

4. In all cases the patient's best clothing should be sent; it will be carefully preserved, and only used when deemed necessary for the purpose above mentioned. Jewelry, and all superfluous articles of dress, knives, etc., should be left at home, as they are liable to be lost, and for which the officers of the hospital are not responsible.

5. A written history of the case should be sent with the patient, and, if possible, some one acquainted with the individual should accompany him to the hospital from whom minute, but often essential, particulars may be learned.

6. The price of board, including washing, mending, and attendance, for all who are supported at the public charge, is five dollars per week.

7. Pauper patients, or those supported partly by the towns in which they reside, and partly by the State, are admitted agreeably to Sections four and six of Amended Act, 1867, and By-Laws.



8. Indigent persons, or those possessing little property, and partly supported by friends and partly by the State, are admitted under Section four of Amended Act, 1867, and By-Laws.

9. Private patients, or those supported by themselves or their friends, are admitted to the Hospital under Section five of Amendment to Act approved July 23, 1867, and By-Laws.

10. Visitors are admitted to the Institution between the hours of ten A. M. and twelve M., and between two and four P. M., on Mondays, Wednesdays and Fridays only, but no visitors shall be admitted to the wards occupied by patients without express permission from the Superintendent, and especial care is to be taken that no amount of visiting is permitted that might prove injurious to the patients.

## FORM FOR PROBATE COURT,

*And proceedings in the matter of admission of patients under Sec. 4 of  
Amended Act, Chapter CII., May Session, 1867.*

To the Hon. Court of Probate of the District of

The undersigned, First Selectman of the town of  
respectfully represents that \_\_\_\_\_ of  
is an insane person, and is now, and for \_\_\_\_\_ has been  
(describe whether pauper or indigent, whether in  
almshouse, or how kept, etc.) He therefore prays that your Honorable  
Court will take said matter into consideration, and appoint a physician to  
visit said insane person, and inquire into and investigate \_\_\_\_\_ case, accord-  
ing to the Statute Laws of Connecticut in such case made and provided,  
and upon finding the allegations of this petition to be true to order said  
\_\_\_\_\_ to be taken without delay to the Hospital for  
the Insane, in the town of Middletown, and State of Connecticut.

Dated \_\_\_\_\_ 187 \_\_\_\_\_ at \_\_\_\_\_ Conn.

(Signed)

*First Selectman,*

At a Court of Probate holden at \_\_\_\_\_ on the  
\_\_\_\_\_ day of \_\_\_\_\_ 187 \_\_\_\_\_

PRESENT : \_\_\_\_\_ Judge.

Upon the foregoing petition and application of  
First Selectman of the Town of \_\_\_\_\_ it is ordered that  
\_\_\_\_\_ of \_\_\_\_\_ physician, be, and he is  
hereby appointed to visit said \_\_\_\_\_ represented to be  
insane, to investigate and inquire into \_\_\_\_\_ case, and make return to this  
Court of the facts concerning \_\_\_\_\_ alleged insanity.

Attest,

*Clerk.*

To the Hon. Court of Probate in and for the District of

The undersigned, \_\_\_\_\_ physician, hereby makes return  
that, in pursuance of an order of this Court, passed on the  
day of \_\_\_\_\_ 187 \_\_\_\_\_, he visited the said  
at \_\_\_\_\_ in said \_\_\_\_\_ represented to be insane ;

that he made a full and complete investigation of said case, and is of the opinion that the said insane, and that the prayer of said petition should be granted.

Dated at                      this                      day of                      187 .

(Signed)

*Physician.*

At a Court of Probate holden at \_\_\_\_\_ in and for the  
District of \_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_

PRESENT : Judge.

Upon the hearing of the petition of \_\_\_\_\_ First  
Selectman of the town of \_\_\_\_\_ setting forth and showing that  
one \_\_\_\_\_ an insane person, is now \_\_\_\_\_ of said  
\_\_\_\_\_ and praying, for reasons therein set forth, that  
may be removed to the Hospital for the Insane at Middletown, as per pe-  
tition on file, this Court having investigated the case, and heard the report  
of the physician duly appointed to examine said case, doth find the alle-  
gations of said petition to be true, and it is ordered that the said  
\_\_\_\_\_ be removed without delay to the Hospital for the In-  
sane of the State of Connecticut, at Middletown.

Attest,

*Clerk.*

FORM OF REQUEST FOR PRIVATE PATIENTS.

*To the Superintendent of the General Hospital for Insane, at Middletown,  
Conn.*

The undersigned, of \_\_\_\_\_ county of \_\_\_\_\_ State of \_\_\_\_\_ requests the admission into the Hospital, under your charge, of \_\_\_\_\_ resident of \_\_\_\_\_ county of \_\_\_\_\_ aged \_\_\_\_\_ who has been *(here state occupation, condition, &c.)* He (or she) is a native of \_\_\_\_\_ and is *(here state condition or relationship)* of the undersigned.

(Give here, in writing, a history of the case, when insanity commenced, and by what caused.)

Dated 187 .

## FORM OF PHYSICIAN'S CERTIFICATE.

I, \_\_\_\_\_ physician, of \_\_\_\_\_ county of \_\_\_\_\_ State of \_\_\_\_\_ hereby certify that I have examined into (or am acquainted with) the state of health and mental condition of \_\_\_\_\_ of \_\_\_\_\_ county of \_\_\_\_\_ State of \_\_\_\_\_ and that he (or she) is, in my opinion, insane, and a fit subject for the Hospital for the Insane.

Dated \_\_\_\_\_ 187 .

(Signed)

*Physician.*

NOTE.—The Amended Act of 1869 requires that the physician giving the certificate shall make oath or affirm.—See parts of Acts relating to admission, on the succeeding pages.

## FORM OF BOND.

*Know all men by these presents,* That we, \_\_\_\_\_ of the town of \_\_\_\_\_ county of \_\_\_\_\_ State of \_\_\_\_\_ are held and firmly bound unto \_\_\_\_\_ Treasurer of the General Hospital for the Insane of the State of Connecticut, located at Middletown, and to his successors in office, in the sum of five hundred dollars, for the payment of which we jointly and severally bind ourselves by these presents.

Whereas, \_\_\_\_\_ of the town of \_\_\_\_\_ county of \_\_\_\_\_ State of \_\_\_\_\_ an insane person, has been admitted as a boarder in the Hospital for Insane aforesaid; now, therefore, the condition of this obligation is, that if we shall truly pay, during h continuance as such boarder, h board quarterly in advance, and such extra charges as may be occasioned by h requiring more than ordinary care, and for such needful articles of clothing as shall require, which shall be procured by the steward of said Hospital, and shall remove the said \_\_\_\_\_ when the Superintendent shall give notice of the need or propriety of such removal, from whatever cause, and shall also pay not exceeding fifty dollars for all damages may do to the furniture or property of the Hospital, and also for reasonable charges in the event of death, with interest on each bill from and after the time it becomes due, then this obligation is void, otherwise remains in force.

Dated \_\_\_\_\_ 187 .

[L. S.]

[L. S.]

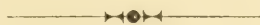
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## PARTS OF ACTS

### RELATING TO ADMISSIONS.



#### *Chapter CII.—Approved 1867.*

“SEC. 4. That whenever any pauper in any town may be insane, it shall be the duty of the first selectman of that town, to make application in his behalf to the Judge of Probate of the district wherein said pauper resides, for his admission to the hospital, and said judge shall appoint one regular and respectable physician, who shall fully investigate the facts of the case, and if satisfied after such investigation that the said pauper is insane, the judge shall issue an order to such first selectman, requiring him, without delay, to take such insane pauper to the hospital, where he shall be kept and supported so long as may be requisite or expedient; and one-half the expense of his support shall be defrayed by the town wherein said pauper resides, and the other half by the State; and that when a person in indigent circumstances, not a pauper, becomes insane, application may be made in his behalf to the judge of probate for the district wherein he resides and said judge shall appoint a respectable physician, who shall fully investigate the facts of the case, and if satisfied after such investigation that such indigent person is in indigent circumstances and insane, the judge shall issue an order to the person or persons making such application, directing him or them to take such indigent person to the hospital, where he shall be kept and supported so long as may be requisite or expedient; and one-half of the expenses of his support shall be paid by the State, and the other half by the parties making the application.”

“SEC. 5. That the trustees may authorize the superintendent to admit under special agreements, whenever there are vacancies in the hospital, such cases as may seek admission.”

#### *Chapter LXXXV.—Approved 29th July, 1868.*

“SEC. 1. That whenever a Judge of Probate for any district shall issue an order for the admission of any indigent insane person to the Hospital for the Insane in this State, he shall make a record of such order, and immediately transmit a duplicate of the same to the Governor of the State.”

“SEC. 2. That before any bill for the support of such indigent insane person in said hospital shall be paid by the Treasurer of the State, the same shall be approved by the Governor.”

*Chapter LXXX.—Approved 8th July, 1869.*

“SEC. 1. Any lunatic or distracted person may be placed in a hospital, asylum, or retreat for the Insane, or other suitable place of detention, either public or private, by his or her legal guardian, or relatives, or friends in case of no guardian ; but in no case without the certificate of one or more reputable physicians, after a personal examination made within one week of the date thereof, which certificate shall be duly acknowledged before some magistrate or other officer authorized to administer oaths, or take the acknowledgment of deeds in the State where given, who shall certify to the genuineness of the signature, and to the respectability of the signer.

“SEC. 2. Any lunatic or distracted person, in addition to the modes already provided for by law, may be placed in a hospital, asylum, or retreat for the insane, or other suitable place of detention, either public or private, by order of any justice of the peace who shall fully investigate the facts of the case, either with or without notice to such lunatic, and if, upon such investigation, he shall find that such lunatic or distracted person is at large, and dangerous to himself, or herself, or others, or requires hospital care and treatment, he shall order such insane person to be taken to some hospital, asylum, retreat, or other suitable place of detention, to be there kept so long as may be requisite or expedient ; but no person shall be so committed without the certificate of one or more reputable physicians as specified in the next preceding section.

“SEC. 3. Any lunatic or distracted person may be placed in a hospital, asylum, retreat, or other suitable place of detention and treatment, public or private, by order of any judge of the superior court of this state, after the following course of proceedings, viz : on a statement or complaint in writing, of any respectable person, that such person is insane, and that the welfare of himself, or herself, or of others, requires his or her restraint, it shall be the duty of such judge immediately to appoint a commission who shall inquire into, and report upon the facts of the case. If in their opinion it is a suitable case for confinement, such judge shall issue his order for such disposition of such person as will secure the object and purpose of such application.

“SEC. 4. The commission provided for in the last preceding section, shall be composed of not less than three, nor more than four persons, one of whom at least shall be a physician, and another a lawyer, judge, or justice of the peace. In their inquisition they shall hear such evidence as may be offered touching the case, also the statement of the party complained of, and of his counsel. The party shall have such notice of the proceedings as said judge shall order, and said judge is hereby authorized,

to have such person placed in suitable custody, during the pendency of said proceedings.

“SEC. 5. On a written statement being addressed by any respectable person to any judge of the superior court of this state, that a certain person then confined in a hospital, asylum, or retreat for the insane, or other place of detention for the insane, is not insane, and is thus unjustly deprived of his or her liberty, such judge, at his discretion, shall appoint a commission of not less than three, nor more than four persons, one of whom at least shall be a physician, and another a lawyer, who shall hear such evidence as shall be offered touching the case, and without summoning the party before them, shall have one or more personal interviews with such person, so arranged, if possible, that such person shall not know or suspect the object or purpose of such interview. Said commission shall, within a reasonable time, make report to said judge, and if, in their opinion, the party is not insane, the said judge shall issue an order for the discharge of such person.

“SEC. 6. If the officers or managers of any hospital, asylum, retreat, or other place of detention, or any of them, shall wish for a judicial examination of a person claimed to be insane in their charge, such examination shall be had in the manner provided in the fifth section of this act.

“SEC. 7. The commission provided for in the fifth section hereof, shall not be repeated in respect to the same party oftener than once in six months, and in respect to such as are committed under the third section hereof, such commission shall not be appointed within the first six months after such commitment.

“SEC. 8. Persons placed in a hospital, asylum, retreat, or other suitable place of detention, under the first section of this act, may be removed therefrom by the party placing such person therein.

“SEC. 9. Persons placed in a hospital, asylum, retreat, or other suitable place of detention, under any of the provisions of this act, may be discharged by the authorities in whom the government of the institution is vested, pursuant to such rules and regulations as they may from time to time adopt in relation to patients and the management of the institution.

“SEC. 10. If, upon the application or complaint of any person made to any judge of the superior court of this state, that a certain person is insane, and suffering for want of proper care or treatment, upon finding the facts true, he shall order such person to be placed in some hospital, asylum, or retreat for the insane, or other suitable place of detention, at the expense of those who are legally bound to maintain such person.

“SEC. 11. The cost and expenses of any of the proceedings herein provided for, shall be paid in the manner, and by the person or party, as the magistrate or judge before whom the same shall be had, shall order and direct, and such magistrate or judge is hereby authorized to issue execution for such costs accordingly.”





# REPORT

OF THE

COMMITTEE APPOINTED IN 1870, TO EXAMINE  
AND REPORT

*DE*

# GENERAL HOSPITAL

# FOR THE INSANE.



HARTFORD:  
PRESS OF CASE, LOCKWOOD & BRAINARD.  
1871.



*To the Honorable General Assembly of the State of  
Connecticut, May Session, 1871.*

The undersigned, members of the Committee appointed by the General Assembly of 1870 "to examine and report upon the past and present management of the General Hospital for the Insane, and also to report whether any additional legislation in relation to said Hospital is in their opinion, proper and expedient" have the honor to submit the following REPORT:

From the commencement, the Hospital has been under the charge of Doctor A. M. Shew, a physician well known for his skill, kindly disposition, and executive ability. The duties of the Superintendent, always onerous, were especially so during the erection of the Hospital Buildings and the initiatory year. Since his first connection with the Institution, we are happy to state that he has given entire satisfaction to the Board of Trustees, having been found fully adequate to the difficult position of Superintendent.

The past and present management of the Hospital appears to have been not only humane, but judicious and economical, and will compare favorably with any similar institution in the country.

Upon the completion of the present Hospital buildings the Trustees found themselves without adequate means to administer its affairs economically. "In order to profit by the lowest price of the markets in the very considerable purchases, required for so large an institution, it is needful to buy for ready cash. To do this and thus keep the commercial credit of the State Hospital at the highest point, several of the Trustees united to provide a cash capital of \$25,000, which sum was borrowed, on notes of individual members of the Board, for the use of the Hospital, from two Savings Banks



in Middletown.” Of this amount \$22,000 now remains unpaid. It is but proper to state that a sum greater than this amount is, at all times due to the Institution from the State, towns and individuals, and a large stock of supplies is necessary always to be kept on hand. In our opinion the State should adopt measures to supply this amount of working capital and release those gentlemen who have so generously advanced their individual security for the benefit of the State.

The General Assembly of 1865 appointed a Joint Select Committee to enquire into the expediency and practicability of providing an Asylum separate from the Retreat in Hartford, and suited to the condition of the insane whether residing at said Retreat or elsewhere in this State.

As the result of the investigation of that Committee it was found that on the 1st day of April, 1866, there were :

In Retreat with State aid,	-	-	-	-	147
In Retreat without aid,	-	-	-	-	55
In Towns, supported or aided,	-	-	-	-	204
All others,	-	-	-	-	300
Whole number of Insane in the State,					706

With this statement of facts before them, together with the urgent demand of the people from all parts of the State, the General Assembly provided for the erection of the present Hospital buildings, which are every way adapted to the use for which they were designed, except in capacity to accommodate all of that unfortunate class who are entitled to the care and protection of the State—unfortunately this number is large and the demand for their accommodation is imperative, as will be seen from the following statement of facts :

The total number of patients in the Institution on the first of April last was two hundred and thirty-seven (237). Of this number one hundred and nineteen (119) were males and one hundred and eighteen (118) were females. There were admitted into the Institution during the year seventy-five (75) new patients. Average during the year  $233\frac{69}{100}$ , an increase of eight over the year previous.

Of the three classes for whom provision is made in the Act of Incorporation, there are at this date (April 1st,) 175 pauper patients, 58 indigent persons, and 4 private patients. The total number of all classes treated during the year was 307, and the whole number discharged 70. There were 203 applications for admission during the twelve months preceding the first of April, which had to be refused or deferred for several months.

There are now seventy-four (74) applications beyond the capacity of the Hospital to accommodate. In consequence of the large number of patients refused for want of room in the Hospital to accommodate them, the application to the Governor for State aid, under the law of 1869, have been quite numerous, and the number of State beneficiaries now in the Retreat at Hartford and in the Insane Hospitals at Northampton, Mass., Providence, R. I., and Concord, N. H., is seventy-three (73), all of whom have the usual State allowance of Two dollars and  $\frac{1}{100}$ ths per week towards their support.

The present buildings accommodate 235 patients. With the addition of two wings, as contemplated by the original design, the Hospital will provide better accommodation for 470 patients, at a comparatively less cost per capita; it being self-evident to all who are familiar with the management of similar institutions, that 500 patients can be better provided for at \$4.00 per week than 250 can at \$5.00—a proportionally less number of employees and officers being required for the larger number.

Definite propositions from responsible parties have been received to erect and complete one or two wings in accordance with the plans and specifications, and corresponding with the original wings of the Hospital Buildings.

The total amount required for each wing as per proposal is \$89,513  $\frac{5}{100}$ . To this amount should be added the sum of \$4,500 for furniture, making a total amount of \$94,013  $\frac{5}{100}$  for each wing. We have reason to believe that these figures would be reduced considerably where plans and proposals are thrown open to competition.

In conclusion, your Committee, assuming that it is the policy of the State to provide accommodations for the insane persons of the State, would respectfully recommend that a Committee of three be appointed by the General Assembly whose duty it shall be to cause to be built, within a period of two years, either one or two additional wings, as the General Assembly shall judge expedient and necessary, in accordance with the plans and specifications, and corresponding to the original wings of the General Hospital at Middletown; and that such an appropriation be made, subject to the order of said Committee, as shall carry out the proposed object.

JAMES E. ENGLISH,	}	<i>Committee.</i>
HENRY S. BARBOUR,		
B. B. THURSTON,		
E. W. SEYMOUR,		

# REPORT

OF THE

## JOINT STANDING COMMITTEE

ON

## RAILROADS

IN REGARD TO

## PASSENGER FARES AND FREIGHTS

ON THE SEVERAL RAILROADS OF THE STATE.

ALSO,

## CONTRACTS AND LEASES

OF THE

New York and New Haven Railroad Co., New  
York and Harlem Railroad Co., Hartford  
and New Haven Railroad Co., and  
Shore Line Railroad Co.





# REPORT OF COMMITTEE.

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The Joint Standing Committee on Rail Roads, to whom was referred the returns of the several Rail Road Companies of the State, showing rates of freights and fares, and leases and contracts with other roads, submit, herewith, the following.

## REPORT.

1. A table showing the rates of fare to those purchasing single tickets from station to station over the whole length of the several roads.

2. A table showing the rates from station to station over the whole length of the roads to those who purchase tickets in packages, or mileage tickets.

3. A table showing the rates of through fare over the roads, (single tickets.)

4. A table showing the rates of through fare over the road, by purchasing package, or mileage tickets.

5. A table showing the rates of fare on commutation tickets.

6. A table showing the rates of local freights.

7. A table showing the rates of through freights.

8. Contract of the New York and New Haven Rail Road with the New York and Harlem Rail Road Co.

9. Last arbitration on the above mentioned Contract.

10. Agreement between the New York and New Haven and the Hartford and New Haven Rail Road Company.

11. Lease of the Shore Line Rail Road Company to the combined New York and New Haven and Hartford and New Haven Rail Road Companies.

JOHN S. TURRILL,  
Chairman on the part of the House.

## TABLE No. I.

FARE FROM STATION TO STATION THROUGH THE WHOLE LENGTH  
OF THE SEVERAL ROADS IN THE STATE,  
SINGLE TICKETS.

	Distance.	Fare.	Rate per mile, cents.
* New London & Northern R. R.,			3.50 to 4.00
New York & New Haven R. R. Co., (in New York,) - - -	27	\$0.80	2.96
N. Haven, Middletown, & Willimantic R. R. Co., - - -	22½	95	4.22
New York & New Haven R. R. Co.,			

## CORRECTION.

\$2.40 fare on the New Haven and Northampton Railroad Co., includes fare on  $13\frac{1}{4}$  miles of branch road, making  $59\frac{3}{4}$  miles in all of that road in the state of Connecticut. The rate per mile of fare is therefore 4 cents, instead of 5.16 cents, as printed on page 5.

The rate on this road, shown in Table No. II, page 6, should be 3 cents per mile, in lieu of 3.53 cents, as there printed.



10. Agreement between the New York and New Haven and the Hartford and New Haven Rail Road Company.

11. Lease of the Shore Line Rail Road Company to the combined New York and New Haven and Hartford and New Haven Rail Road Companies.

JOHN S. TURRILL,  
Chairman on the part of the House.

## TABLE No. I.

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* New London & Northern R. R.,			3.50 to 4.00
New York & New Haven R. R. Co., (in New York,) - - -	27	\$0.80	2.96
N. Haven, Middletown, & Willimantic R. R. Co., - - -	22 $\frac{1}{2}$	95	4.22
New York & New Haven R. R. Co., (in Conn.,) - - -	47	2.20	4.68
Norwich & Worcester R. R. Co., -	60 $\frac{1}{4}$	2.85	4.73
New Haven & Northampton R. R. Co.,	46 $\frac{1}{2}$	2.40	5.16
Naugatuck R. R. Co., - - -	62	3.40	5.48
Hartford & New Haven R. R. Co., (main line,) - - -	62	3.40	5.48
Hartford & N. Haven R. R. Co., (main line and branches,) - -	79 $\frac{1}{4}$	4.60	5.80
Housatonic R. R. Co., - - -	73	4.35	5.96
Hartford, Providence, & Fishkill Rail- road Co., - - -	122 $\frac{1}{2}$	7.55	6.15
Danbury & Norwalk R. R. Co., -	23 $\frac{1}{2}$	2.00	8.51
Shore Line R. R. Co.	No returns received.		

\* Returns of New London and Northern R. R. Co. not given in detail.

## TABLE NO. II.

FARE FROM STATION TO STATION THROUGH THE WHOLE LENGTH  
OF THE ROAD BY PURCHASING "PACKAGE," OR  
" MILEAGE TICKETS."

	Rate per mile, cents.
New London and Northern Railroad Co., (mileage tickets,) \$2.50	
Hartford, Providence and Fishkill R. R., (tickets for 500 miles,) - - - - -	2.60
Housatonic R. R. Co., (25 tickets or mileage,) - -	3.00
New Haven and Northampton Co., (50 tickets,) - -	3.53
Danbury and Norwalk R. R. Co., (round trip,) -	3.74
Norwich and Worcester R. R. Co., (50 tickets,) - -	3.79
New York and New Haven R. R. Co., (no discount,) -	4.68
Hartford, Providence and Fishkill R. R. Co., (10 tickets,) -	4.93
Hartford and New Haven R. R. Co., (no discount,) -	5.48
Naugatuck R. R. Co., (no discount reported,) - -	5.48
Shore Line R. R. Co., no returns received.	

## TABLE NO III.

## THROUGH FARES—SINGLE TICKETS.

	Distance.	Fare.	Rate per mile, cents.
* New London & Northern,			\$2.50 to \$3.00
New Haven and Northampton Co.,	46 $\frac{1}{2}$	1.45	3.12
Hartford and New Haven,	62	2.00	3.22
Naugatuck, - - -	62	2.00	3.22
New York and New Haven, -	47	1.55	3.29
Norwich and Worcester, -	60 $\frac{1}{4}$	2.00	3.32
Housatonic, - - -	73	2.45	3.35
Hartford, Providence and Fishkill,	122 $\frac{1}{2}$	4.10	3.35
Danbury and Norwalk, - -	23 $\frac{1}{2}$	1.00	4.27
New Haven, Middletown and Willi- mantic, - - -	22 $\frac{1}{2}$	.90	4.00
Shore Line Railroad Co., no returns received.			

\* Returns from New London and Northern R. R. Co., not given in detail.



## TABLE No. IV.

THROUGH FARES, BY PURCHASING "PACKAGE" OR "MILEAGE"  
TICKETS.

	Rate per mile, in cents and decimals of a cent.
New Haven & Northampton Co., (50 tickets,)	2.34
New London & Northern R. R. Co., (mileage ticket,)	2.50
Hartford, Providence, & Fishkill R. R. Co., (ticket for 500 miles,) - - - - -	2.60
Norwich & Worcester R. R. Co., (50 tickets,)	2.66
Hartford, Providence, & Fishkill R. R. Co., (10 tickets,)	2.68
Housatonic R. R. Co., (25 tickets, or mileage tickets,)	3.00
Hartford & New Haven R. R. Co., (no discount,)	3.22
Naugatuck R. R. Co., (no discount reported,)	3.22
New Haven & New York R. R. Co., (no discount,)	3.29
Danbury & Norwalk R. R. Co., (round trip,)	3.74
Shore Line R. R. Co., (no returns received,)	

## TABLE NO. V.

## PASSENGER FARES TO COMMUTERS.

Tickets are issued for trips between all the stations, and for one month as well as for three, six and twelve months. Excepting on the Hartford, Providence & Fishkill road, commuters may make any number of trips each week-day. On that road the trips are limited to about 30 per month, but a payment of 25 per cent. additional removes the limitation.

The following table is based upon an estimate of 26 trips each way per month:

*New York & New Haven R. R. Co.*

	Rate per mile in decimals of a cent.
Stamford to New York, 35 miles, 3 months, \$50,	0.91
“ “ “ 6 “ 75,	0.68
“ “ “ 12 “ 113,	0.51
New Haven to New York, 74 miles, 3 months, \$65,	0.54
“ “ “ 6 “ 98,	0.42
“ “ “ 12 “ 146,	0.31

*Hartford & New Haven R. R. Co.*

Hartford to New Haven, 36 miles, 3 months, \$31,	0.55
“ “ “ 6 “ 50,	0.44
“ “ “ 12 “ 98,	0.43
Springfield to New Haven, 62 miles, 3 months, \$45,	0.45
“ “ “ 6 “ 66,	0.34
“ “ “ 12 “ 120,	0.31

*Hartford, Providence & Fishhill R. R. Co.*

Willimantic to Hartford, 31½ miles, 3 months, \$30.75,	0.62
“ “ “ 6 “ 58.43,	0.59
“ “ “ 12 “ 104.50,	0.51
Providence to Hartford, 90 miles, 3 months, \$60,	0.43
“ “ “ 6 “ 114,	0.40
“ “ “ 12 “ 204,	0.38

*Danbury & Norwalk R. R. Co.*

Norwalk to Danbury, 23½ miles, 3 months, \$21,	0.55
“ “ “ 6 “ 38,	0.51
“ “ “ 12 “ 70,	0.47

*Norwich & Worcester R. R. Co.*

Putnam to Norwich, 33 miles, 3 months, \$36,	0.69
“ “ “ 6 “ 68,	0.66
“ “ “ 12 “ 130,	0.63
Worcester to Norwich, 60 miles, 3 months, \$55,	0.58
“ “ “ 6 “ 100,	0.53
“ “ “ 12 “ 200,	0.53

*New Haven, Middletown & Willimantic R. R. Co.*

Middletown to New Haven, 22½ miles, 3 months, \$25,	0.70
“ “ “ 6 “ 45,	0.62
“ “ “ 12 “ 85,	0.60

*Housatonic R. R. Co.*

For 30 miles, 3 months, \$40,	0.86
30 “ 6 “ 70,	0.73
50 “ 3 “ 57,	0.72
50 “ 6 “ 95,	0.62

*Naugatuck R. R. Co.*

Waterbury to Bridgeport, 31½ miles, 3 months, \$45,	0.92
“ “ “ 6 “ 80,	0.82
Winsted to Bridgeport, 62 miles, 3 “ 62.50,	0.64
“ “ “ 6 “ 105,	0.53

*New Haven & Northampton R. R. Co.,*

No commutation tickets sold.

*New London & Northern R. R. Co.*

Commutation reported at 2.50 per mile.

*Shore Line R. R.*

No returns received.

## TABLE NO. VI.

A TABLE SHOWING THE RATES OF LOCAL FREIGHTS.



## TABLE NO. VII.

## THROUGH FREIGHTS.

					Rate per ton per mile, cents and dec. of a cent.
New York and New Haven R. R. Co.,	-	-	-	-	4.60
Hartford and New Haven R. R. Co.,	-	-	-	-	5.32
New Haven and Northampton R. R. Co.,*	-	-	-	-	4.70
Housatonic R. R. Co., (whole length of road,)	-	-	-	-	5.00
“ “ (Bridgeport to Canaan, 73 miles,)	-	-	-	-	9.04
New London and Northern R. R. Co.,	-	-	-	-	3.00
Naugatuck R. R. Co.,	-	-	-	-	7.95
“ “ (coal,)	-	-	-	-	4.43
Hartford, Providence, and Fishkill, (Providence to Hartford,)					4.66
“ “ “ (Providence to Waterbury,)					4.08
Shore Line R. R. Co.,	-	-	-	-	5.90
Norwich and Worcester R. R. Co.,	-	-	-	-	
Danbury and Norwalk R. R. Co.,	-	-	-	-	12.34
New Haven, Middletown, and Willimantic R. R. Co.,	-	-	-	-	8.88

\* Coal rates average a trifle over 3 cents per ton per mile.

# CONTRACT

*Between the N. Y. & N. H. R. R. Co., and the N. Y. and  
Harlem R. R. Co.*

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At a meeting of the N. Y. & N. H. R. R. Co., held at the office of Messrs. R. & G. L. Schuyler, in the City of New York, on the 20th day of January, 1846, the following resolution was unanimously adopted: —

“ *Resolved*, That the Committee in charge of the negotiation with the N. Y. and Harlem R. R. Co., consisting of Messrs. R. Schuyler, Bishop, and Elihu Townsend, be authorized, and have full powers to consummate and execute a formal agreement in behalf of this Company, with the N. Y. and Harlem R. R. Co., upon the basis of the arrangement already made with the Committee of the N. Y. and Harlem R. R. Co., as reported by them at this meeting.”

[A true copy of the minutes, &c.]

(SIGNED,)

G. L. SCHUYLER,

*Sec't.*

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## AGREEMENT WITH N. Y. AND HARLEM RAILROAD CO., JAN. 1846.

Whereas, at a meeting of the N. Y. and N. H. R. R. Co., held at the office of R. & G. L. Schuyler, in the city of New

York, on the 20th day of January, 1846, the above resolution, No. 1, was unanimously adopted (recited above), as appears by the certified copy of the original resolution attested by the signature of Geo. L. Schuyler, Secretary, hereto annexed.

And whereas, Mr. Samuel E. Lyon has been appointed sole Committee, with full powers, on behalf of the said N. Y. and Harlem R. R. Co., to execute and deliver in due form of law, the agreement above mentioned on the part of the said N. Y. and Harlem R. R. Co., as appears by the certificate duly attested, hereto annexed. Now, therefore, it is hereby mutually agreed and understood, by and between the said N. Y. and N. Haven R. R. Co., represented by Messrs. Schuyler, Bishop, and Townsend, as aforesaid, and the N. Y. and Harlem R. R. Co., represented by Mr. Samuel E. Lyon, as aforesaid, as follows, viz :

1st. The two companies, by their officers, friends, and agents, shall use their best efforts to obtain the passage of an act through the Legislature of the State of New York, authorizing the N. Y. and N. Haven R. R. Co. to extend their road from the western line of the State of Connecticut, to the city of New York.

2d. After the passage of such an act the two companies shall agree to connect their several roads at or near William's Bridge, Westchester Co., which point of connection may be provided for in said bill.

3d. When the said N. Y. and N. Haven R. R. Co, shall have completed their road from William's Bridge to Byram River, they shall have the right to run their engines and cars for passengers, freight, mails, expresses, &c., over the N. Y. and Harlem R. R. from the point of junction, as aforesaid, to the City of New York, and as far over the same, in the said city, as the said company's road shall extend, for the compensation hereinafter mentioned, the said N. Y. and New Haven Co. furnishing their own haulage.

4th. The said New York and New Haven Railroad Company shall, within three years from the passage of the Act



above mentioned, construct and finish their said road from the point of junction as aforesaid to the Byram River, and as a compensation for the use of the New York and Harlem Co.'s road, shall permit the said New York and Harlem Co. to carry over and upon the said extension from Williams Bridge to Byram River all the Westchester County passengers, the said New York and Harlem Co. furnishing their own haulage, with as many trains as they may deem necessary.

*Provided*, They be so far under the control of the New York and New Haven Superintendent as not to interfere with the time of the New York and New Haven Railroad Co.'s regular trains. The New York and New Haven Co. hereby granting to the said New York and Harlem Railroad Co. the right to Westchester Co. passengers, reserving to themselves all other business which may be carried on said Railroad between Byram River and Williams Bridge.

5th. The New York and Harlem Co. do further consent to furnish to the New York and New Haven Co. room for their engine and car house at Thirty-third street and Forty-second street, in no event to exceed one-half the New York and Harlem Co.'s real estate at those places, at the rate the same cost the New York and Harlem Co., being principal and interest upon the investment for that purpose.

6th. The said New York and Harlem Company do further agree to grade and construct a double track, to be laid with heavy H rail, from Harlem river to the aforesaid point of junction; to be made in a manner to be approved by the Chief Engineers of both roads; the said New York and New Haven Company agreeing to furnish the money necessary to construct and lay said double track to the said New York and Harlem Company, upon their bonds with seven per cent. interest, payable five years from date, to be secured by a mortgage on said road.

7th. It is hereby understood and agreed that each Company is to keep its own road in good repair at its own expense.

8th. This agreement shall continue in force and be binding upon both Companies during the term for which their charters have been granted, and for any renewal thereof.



In witness whereof, the said New York and New Haven Company, represented by Messrs. Schuyler, Bishop, and E. Townsend, committee specially authorized for that purpose, and the New York and Harlem Company, by Samuel E. Lyon, committee in like manner specially authorized in behalf of said Company, have duly executed these presents in duplicate this 22d day of January, 1846.

Signed,                      ROBERT SCHUYLER,  
    ELIHU TOWNSEND,  
    A. BISHOP,  
    SAMUEL E. LYON.

In accordance with, and to carry out the provisions of the within agreements (above), and especially of article second of the same, the New York and New Haven R. R. Co., and the New York and Harlem R. R. Co., hereby mutually agree that the point of junction and connection between the two Companies, "at or near Williams Bridge," referred to in said agreement, be fixed and established at a point on the line of the New York and Harlem R. R., one mile and 62 chains north of the Depot of the New York and Harlem R. R. Co., as the same now stands at Williams Bridge.

In witness whereof, the two Companies have caused this agreement to be duly executed this 12th day of February, A. D., 1847, under the respective seals, and attested by the signatures of their Presidents.

Signed,  
                                  R. SCHUYLER, Pres. N. Y. & N. H. R. R. Co.  
                                  JOHN H. DYKERS, Pres. N. Y. & H. R. R. Co.

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CONTRACT, NEW YORK AND HARLEM R. R. CO.,  
                                  MARCH 17, 1848.

This Agreement and Contract of Transportation, made and concluded this 17th day of March, A. D., 1848, between

the New York and Harlem R. R. Co., of the one part, and the New York and New Haven R. R. Co., of the other part, WITNESSETH as follows :—

*First.* It is mutually understood and agreed that this agreement shall stand in the place and stead of a certain agreement heretofore made between the said parties bearing date the 22d day of January, 1846.

*Second.* It is mutually understood and agreed that the junction and connection of the railroads of the two companies at or near Williams Bridge, as now located, one mile and 62 chains north of the present depot or station house of the New York and Harlem R. R. Co., at Williams Bridge, be and the same is hereby confirmed, approved and adopted.

*Third.* It is mutually understood and agreed that the New York and New Haven R. R. Co. shall, on or before the 11th day of May, 1849, construct and finish the said road from the point of junction aforesaid to Byram River.

*Fourth.* It is mutually understood and agreed that when and as soon as the New York and New Haven R. R. Co. shall have completed their road from the point of junction to Byram River, they shall have the right to run their trains, engines, and cars, for the transportation of passengers, mails, expresses, freight, and cover the track or tracks of the road of the New York and Harlem R. R., from the point of junction aforesaid to and into the city of New York, and as far into the said city as the said Company's road shall extend, not, however, below the intersection of said railroad and Pearl street, in said city, the said N. Y. & N. H. Co. furnishing their own haulage.

*Fifth.* It is mutually understood and agreed that in the arrangement of the trains of the two Companies, preference shall be given to the through trains of the N. Y. and N. H. R. R. Co., over the way or freight trains to be run by the N. Y. and Harlem R. R. Co., and in like manner a preference shall be given to the through trains of the N. Y. and Harlem R. R. Co. over the way and freight trains of the N. Y. and N. Haven R. R. Co., and upon this principle the mode of running the trains of the two Companies shall be adjusted from

time to time by the said Companies, or such officers as they may respectfully appoint or designate to make such arrangements for running their several trains, so as to insure the greatest speed, accommodation, and safety to passengers, &c.

*Sixth.* It is mutually understood and agreed, that the N. Y. & N. Haven R. R. Co. shall pay, in the manner hereinafter provided, and the N. Y. & Harlem R. R. Co. shall receive, as full compensation for the use and occupation of their track or tracks as aforesaid, a certain sum for each passenger transported by the said N. Y. & N. Haven R. R. Co. in their several trains, to be dependent upon and adjusted by the total number transported daily, according to the following scale: "For any number not exceeding one thousand per diem, at the rate of fourteen cents each. For any number not exceeding twelve hundred and fifty, but over one thousand per diem, at the rate of twelve cents each. For any number not exceeding fifteen hundred per diem, but over twelve hundred and fifty, at the rate of ten cents each. For any number not exceeding seventeen hundred and fifty per diem, but over fifteen hundred, at the rate of nine cents each. For any number not exceeding two thousand, but over seventeen hundred and fifty per diem, at the rate of eight and a half cents each. For any number not exceeding twenty-five hundred, but over two thousand per diem, at the rate of eight cents each. For any number not exceeding three thousand, but over twenty-five hundred per diem, at the rate of seven and a half cents each. For any number not exceeding thirty-five hundred, but over three thousand per diem, at the rate of seven cents each. For any number not exceeding four thousand, but over thirty-five hundred per diem, at the rate of six and one-half cents each. For any number exceeding four thousand per diem, without further limit, at the rate of six cents each.

*Seventh.* It is mutually understood and agreed, that the N. Y. & N. Haven R. R. Co. shall and will make monthly payments in pursuance of the above covenant, calculated from the daily returns of the month for which payment is made.

*Eighth.* It is mutually understood and agreed, that a system of commutation, and the terms thereof, and for running



express engines, shall be adopted by the two Companies as soon as they shall deem it judicious and necessary, and may arrange the details of such system.

*Ninth.* It is mutually understood and agreed, that an allowance shall be made and paid by the N. Y. & N. H. R. R. Co. to the N. Y. & Harlem R. R. Co., for such portion of the amount which they may actually receive for the transportation of mails, expresses, trunks, crates, and packages, and for goods, wares, produce, and merchandize generally, as shall hereafter be agreed, upon the following principles, that is to say, the N. Y. and N. Haven R. R. Co. shall retain a fixed amount for the station expenses at the point from which the above business is received, and also that to which it is delivered, and in like manner for the mail service, for the expenses of transportation to and from the several Post-offices and the Railroads. They shall also retain a proper and adequate amount for the transportation or haulage to be done by them as aforesaid over the roads of the N. Y. & Harlem R. R. Co. and the N. Y. & N. Haven R. R. Co., and the balance which may remain shall be apportioned rateably as to the distance which may have been used of the roads of the two Companies respectively.

*Tenth.* The N. Y. & Harlem R. R. Co. do further covenant to furnish to the N. Y. & N. Haven R. R. Co. room for their engines and car-house at Thirty-third and Forty-Second street, in no event to exceed one-half of the N. Y. & Harlem R. R. Co.'s real estate at those places, at the rate the same cost the N. Y. & Harlem R. R. Co., being principal and interest upon the investment for that purpose, to be decided upon by the N. Y. & N. Haven R. R. Co. within (30) thirty days after the said Company is furnished with a statement of the cost of said properties respectively.

*Eleventh.* It is mutually understood and agreed that the N. Y. & Harlem R. R. Co. shall without delay proceed to grade and construct a second line of rails or track with heavy H rails, from the termination of their present double track to the aforesaid point of junction, which second track is to be made in a manner to be approved by the Chief Engineers of



both roads, and to be completed and ready for use on or before the completion of the road of the N. Y. & N. Haven R. R. Co. from said point of junction to Byram River, now supposed to be on or about the 1st day of October next, but it is further understood and agreed that the N. Y. & N. Haven R. R. Co. shall and will, upon the request of the N. Y. & Harlem R. R. Co., loan and advance to them the sum necessary for the construction of the said second track, by installments as the work advances, or upon the execution of contracts for the same with responsible parties satisfactory to the N. Y. & N. Haven R. R. Co., but this mode of payment shall be at their option to be secured by the bonds of said N. Y. & Harlem R. R. Co., payable Five years after date, bearing interest at the rate of seven per cent. per annum, payable half yearly, secured by the mortgage of said second track and appurtenances.

*Twelfth.* It is mutually understood and agreed, that if the N. Y. & Harlem R. R. Co. shall by any unforeseen impediment be prevented from completing the new bridge over the Harlem river required for the construction of the said second track within the time limited in the next preceding article of this agreement, the time for completing the same shall be extended without affecting the other stipulations of this agreement.

*Thirteenth.* It is mutually understood and agreed that the N. Y. & Harlem R. R. Co. shall keep its road from the aforesaid point of junction to the termination of the part thereof to be used by the N. Y. & N. Haven R. R. Co. in good and sufficient repair to ensure the greatest speed, accommodation, and safety to passengers.

*Fourteenth.* It is mutually understood and agreed, that this agreement shall continue in force and be binding upon both companies during the term of their charters, respectively, and for all renewals thereof, but either party may terminate the covenants for compensation numbers 6, 7, 8, and 9, of this agreement upon any day after the expiration of three years from the commencement of the use of the road of the N. Y. and Harlem R. R. Co., by the N. Y. and N. Haven R. R. Co.

of which not less than twelve months notice shall have been given in writing to the other, but in that event it is mutually understood and agreed that the two companies shall and will forthwith, on service of said notice, proceed to arrange the terms of the new covenant for the above purposes, and if they cannot agree upon the terms of said new covenants, then the matters or points of disagreement shall be submitted to arbitrators in the usual mode, whose award shall be binding upon the parties and be embodied in the said new covenants for the ensuing five years, and at the end of each succeeding five years new covenants in regard to compensation shall be made in like manner, upon like notice being given by either party.

In witness whereof the said N. Y. and N. Haven R. R. Co. and the said N. Y. and Harlem R. R. Co. have caused this agreement to be duly executed, in duplicate, this seventeenth day of March, A. D. 1848, under their respective seals, and attested by the signatures of their Presidents.

Signed, CHARLES PARSHALL, Pres. Harlem Co. [Seal.]

“ ROBERT SCHUYLER, Pres. N.Y. & N.H. Co. [Seal.]

#### ADDITIONAL ARTICLE.

It is hereby understood and agreed that no fares shall be charged on the N. Y. and N. Haven R. R. below twenty-five cents from any point near the Harlem R. R. so as to interfere with the local fare of said Harlem R. R. Co., provided, however, that if the N. Y. and Harlem Co. shall reduce their present fare to Williams Bridge of twenty-five cents, the N. Y. and N. Haven Co. may also reduce pro rata below twenty-five cents, and that no way-passengers shall be taken by the N. Haven Co. between Williams Bridge and the city of New York.

A true copy.

Attest,

E. C. ROBINSON,

*Chief Clerk.*

N. Y., June 29.

NEW YORK & NEW HAVEN R. R. Co.,	}	<i>Award of Arbitrators</i> <i>January 19th, 1861.</i>
NEW YORK & HARLEM RAILROAD Co.,		

The undersigned arbitrators, to whom were submitted certain matters on points of disagreement between the New York and Harlem Railroad Company and the New York and New Haven Railroad Company, in relation to the compensation to be received by the New York and Harlem Railroad Company for the use of their tracks by the New York and New Haven Railroad Company, in accordance with a contract between the said companies, dated March 7th, 1848, hereby make the following award:

The points of disagreement as referred to us being articles sixth, seventh, eighth, and ninth, of said contract, we have agreed upon the following to be substituted for said articles of corresponding numbers, viz:

*Sixth*, That the New York and New Haven Railroad Company shall pay, and the New York and Harlem Railroad Company shall receive as full compensation for the use of and occupation of their tracks, as provided in said contract, as follows, viz: for each full price passenger transported over their road by the New York and New Haven Railroad Company, the sum of (13) thirteen cents, and for each commuting passenger so transported over their road, the sum of ( $4\frac{1}{3}$ ) four and one-third cents.

*Seventh*, That on all freight, express matter, extra baggage, mails, &c., transported over the New York and Harlem Railroad, as aforesaid, by the New York and New Haven Railroad Company, for such transportation there shall be retained by that company in payment for their station, motive power, and other expenses, ( $\frac{60}{100}$ ) sixty per cent. of the entire amount received by the said New York and New Haven Railroad Company, and the remaining ( $\frac{40}{100}$ ) forty per cent. shall be divided between the two companies in proportion to the distances said freight, express matter, extra baggage, mails, &c., shall have passed over their respective roads.

*Eighth*. That the compensation fixed in article sixth to be paid to the New York and Harlem Railroad Company for the use of their tracks, is predicated on the existing local tariff rates for through passengers of the New York and New Haven Railroad Company, and if any change of said rates shall be made, then said compensation shall be proportionally advanced or reduced as the case may be, but



no reduction shall be made in said rates without the concurrence of the Presidents of said companies, and in case of disagreement between them the matter shall be referred to such arbitor or arbitors as they may select, who shall determine whether such proposed reduction is judicious and should be made.

*Ninth.* That the New York and New Haven Railroad Company shall make monthly payments, in pursuance of the aforesaid contract, calculated from the daily business of the month for which payment is to be made, and each company shall be responsible to the other for the acts, neglects, or defaults of its own employees.

Witness our hands (in duplicate) this nineteenth day of January, A. D., 1861.

DAN TYLER, }  
F. C. ARMS, } Arbitrators.  
CHAS. MINOT, }

A true copy attest,

E. C. ROBINSON,  
*Chf. Clk.*

N. Y., June 29, '71.

Since the above arbitration the rate received by the Harlem R.R., for regular passengers of the New York and New Haven Railroad has been increased to about  $16\frac{1}{4}$  cents each, and for commuters to about  $5\frac{1}{4}$  cents each trip.

W. D. BISHOP,  
*Prest.*

*Extract from Annual Report of New York & New Haven Railroad Co., for year ending 30 Sept., 1869.*

Paid Harlem R. R. Co. during the year for haulage by	
horses, - - - - -	\$77,932.65
For passenger fares, - - - - -	197,641.94
Total, - - - - -	<u>\$275,574.59</u>



A G R E E M E N T

B E T W E E N   T H E

N E W   Y O R K   &   N E W   H A V E N

A N D   T H E

H A R T F O R D   &   N E W   H A V E N   R . R . C O .

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WHEREAS, The New York and New Haven Railroad Company is the owner of a double track railway extending from the city of New Haven westerly towards and unto the State of New York; and

WHEREAS, The Hartford and New Haven Railroad Company is the owner of a double track railway extending northerly and easterly from said city of New Haven, to the city of Springfield in the State of Massachusetts, with sundry branches.

Now this agreement between said New York and New Haven Railroad Company of the one part, and said Hartford and New Haven Railroad Company of the other part—Witnesseth:

I. That the parties hereto, under authority of, and in accordance with, a statute law of the State of Connecticut, entitled “An Act in addition to an Act concerning Communities and Corporations,” approved July 8, 1869, hereby covenant and agree with each other in consideration of mutual promises, as follows:

II. From and after the First day of September, A. D. 1870, the entire railways and all the properties owned on that day by the parties hereto, except as hereinafter excepted, including all railways, properties and interests held by said parties or either of them, by lease, contract or otherwise, and all other railways or properties which shall thereafter be acquired by said parties or either of them, under

the provisions of this agreement, shall be operated, managed, and held as a joint estate under a joint and common management, direction and control.

III. And to this end, all the personal property of every kind and name, in possession or in action, belonging to said corporations or either of them, on the day and date above named, except archives, files and records, and excepting also all moneys, claims and demands which shall hereafter become due on account of subscriptions to the capital stock of said corporations respectively, shall, from and after said day and date, become and forever remain the joint estate of said corporations as tenants in common, in the ratio and proportion of fifty-seven one-hundreths part thereof, to said New York and New Haven Railroad Company, and forty-three one-hundreths parts thereof, to said Hartford and New Haven Railroad Company.

IV. And whereas, the New York and New Haven Railroad Company, and the Hartford and New Haven Railroad Company, have each called in and collected an installment of twenty-five dollars per share on their increased capital stock—and whereas, the amount so collected by the latter company is in excess of its due ratio and proportion under this agreement, now, for the purpose of correcting said excess and disproportion, it is agreed that the New York and New Haven Railroad Company shall, within sixty days from the day and date hereinbefore named, pay into the treasury of the joint corporations, the sum of Two Hundred and Forty-Four Thousand One Hundred and Eighty-Six  $\frac{04}{100}$  dollars, for their joint use, and as part of their joint estate under this agreement.

V. All the real estate of any kind, railways and franchises of each of the parties hereto, and all interest therein held by them or either of them, shall from the day and date before named become, and are hereby from said date declared to be, for the purposes of a joint and common use, occupation and benefit under this agreement, a common and joint estate in which, and in the profits, revenues and proceeds thereof, each party is hereby declared to be entitled, in the ratio and proportion before named.

VI. All estates, railways and franchises, and all interests therein, which may at any time thereafter be acquired by said parties or either of them, for the joint use of said parties, or for the benefit of said railways or either of them, or of the business of said railways or of either of them, shall be held to the same uses and purposes as are declared in the next preceding section, and in the same proportion.

VII. Neither of the parties hereto shall, during the continuance

of this contract, become the owner of, or interested in, and other railway, railway property, franchise or other carrying business or property, except with the approval and consent of the board of managers hereinafter created.

VIII. All the railways, properties, and franchises of said corporations and of each of them, owned by them or either of them on the day and date above named, and all other property of any kind which shall thereafter be acquired in their joint or several names, for and on account of their joint use or business, shall be operated, managed and controlled by a Board of Managers, ten in number.

IX. The board of directors of each corporation shall, before this instrument takes effect, and annually thereafter, at each successive annual election of directors, or so soon thereafter as may be, appoint five of their number, including their President, to compose said board of managers, who shall hold their places for the next succeeding year, and until others are appointed in their stead, provided that the term of the persons first appointed shall expire so soon as others are appointed in their stead, and provided, also, that any person so appointed ceasing to be a director shall also, and at the same time, cease to be a member of said board of managers.

X. All vacancies in said board of managers shall be filled by the board of directors, to which the member creating said vacancy belongs.

XI. Said board of managers may act by a majority of their whole number, may appoint and employ a President, Vice-President, Treasurer, Secretary, and such other officers, agents, and servants as they may judge necessary for the transaction of the joint business of said corporations, upon such terms, and with such powers and duties as they may judge meet and proper, and said board shall have and exercise as the agent of said two corporations jointly, in the conduct, management, and disposition of all their joint property, business, and interests, all the powers and authority heretofore held and exercised by said boards of directors respectively. But no act of said board shall be valid without the concurrence therein of at least three members from each board of directors, including its president, and each of said corporations, by itself or its board of directors, shall, whenever occasion may so require, do any acts, pass any votes, and execute any contracts, conveyances, or other instruments necessary or proper to carry into effect the engagements, obligations or undertakings of said board of managers, in the execution of the powers herein conferred.



**XII.** The parties hereto jointly in the proportions aforesaid, hereby assume each, every, and all of the undertakings, debts, bonds, and liabilities of each of said corporations, whether absolute or contingent, in contract or tort, existing on the day and date hereinbefore named, and all such undertakings, debts, bonds, and liabilities, shall be discharged out of the joint funds, or, if extended or renewed upon the separate credit of either of said corporations, shall be ultimately provided for, both principal and interest, out of the joint funds and estate of said corporations.

**XIII.** All expenses and losses of every kind and nature which may arise to the parties hereto, or to either of them, in the course of said joint business, or in consequence of any thing done by them or either of them, under this agreement;—all repairs, renewals and settlements of railway equipment or property belonging to said corporations, or held by them, or either of them, for the joint use and benefit of the parties hereto;—all works in progress by either corporation, and all new works, contracts, or extensions, which may hereafter be undertaken, under the authority of said board of managers, by the parties hereto, or either of them, for their joint use and benefit, shall be paid for out of the joint earnings and funds of said parties.

**XIV.** If the common funds and earnings of the parties hereto shall, in the opinion of the board of managers, be insufficient, and additional funds shall be necessary for the liquidation of the debts of said companies, or of either of them, or for the prosecution of any new work which shall be undertaken, by the joint consent of the parties hereto, or for any other legitimate purpose, then and in that event such additional funds shall be contributed by said corporations, in the proportion hereinbefore expressed, provided that neither corporation shall in any manner, for that purpose or for any other purpose, encumber its corporate estate, or issue any bond or other liability on the credit of said corporation, without consent of the board of managers.

**XV.** The nett earnings of the entire railway and property brought into union under this contract shall be from time to time, by the board of managers, divided between said corporations, in the ratio and proportion aforesaid, and the proportion thereof, belonging to each corporation, shall thereupon be paid over to the treasurer of such corporation, to be and remain the sole and exclusive estate of said corporation in severalty and to be divided amongst the stockholders



thereof, or otherwise disposed of as may be ordered by the directors of said corporation.

XVI. The purpose of this contract is to effect, so far as may at present legally be done, a complete and perpetual union of rights and interests between the parties hereto, and, to the end that such union may be the better secured and become organic, it is hereby agreed that, so soon as the same may legally be done, the parties hereto shall be merged and consolidated in a single corporation, and in such merger and consolidation the value of the stock of each of said corporations shall be taken to be in the ratio and proportion above stated, and all apportionments of stock or other adjustments under such consolidation, shall be made on that ratio and basis.

XVII. It is hereby expressly agreed, that this contract shall be perpetual, and that the parties hereto shall execute to each other any and all other and further contracts, assurances, and writings which may be, in the opinion of said board of managers, necessary to carry into effect the purposes of this agreement.

XVIII. But if in consequence of hostile legislation or judicial action against the will of the parties hereto, this contract shall come to an end, and the purpose intended hereby shall be incapable of accomplishment in any other or different way, then, and in that event, the parties hereto shall be restored, so far as the same can possibly be done, to their original rights, properties, franchises, and position, and such compensations, interchanges, adjustments, and conveyances, shall be made between the parties as, considering the original state and value of the property of each, and its changed condition by additions, betterments, depreciation or otherwise, or considering any and all other matters and things appertaining to equity and good conscience shall be just and reasonable.

XIX. The executive officers of each of said corporations shall continue in office, and in the performance of their respective duties until otherwise ordered by said board of managers.

XX. Provided, however, and it is hereby understood and agreed, that this contract shall not be operative until the same shall have been approved by the stockholders of each of said corporations, at a meeting specially warned and held for that purpose.

In witness whereof, the New York and New Haven Railroad Company, acting herein by its agents, William D. Bishop, Wilson G. Hunt, and E. H. Trowbridge, hereunto duly authorized by its Board of Directors, and the Hartford and New Haven Railroad Company, acting herein by its President, William P. Burrall, hereunto duly

authorized by its Board of Directors, have hereunto, and o a dupli  
cate hereof, set their hands and seals respectively.

Dated at New Haven, the third day of August, 1870.

[Signed,]

THE NEW YORK AND NEW HAVEN RAILROAD Co. [L. S.]  
by its agents,

WM. D. BISHOP,  
WILSON G. HUNT,  
E. H. TROWBRIDGE.

[Signed,]

THE HARTFORD AND NEW HAVEN RAILROAD Co. [L. S.]  
by its President,

WILLIAM P. BURRALL.  
[DULY STAMPED.]

L E A S E  
FROM THE  
SHORE LINE RAILROAD CO.  
TO THE  
NEW YORK AND NEW HAVEN RAILROAD CO.

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*This Indenture and Contract* of transportation, made this nineteenth day of October, one thousand eight hundred and seventy, between *the Shore Line Railway* of the first part, and *the New York and New Haven Railroad Company* of the second part witnesseth that *whereas* the said party of the first part has now constructed and in operation a line of railroad extending from a point in the line of the railroad of said party of the second part, in the city of New Haven, to a point on the west side of New London Harbor in the city of New London, a distance of about fifty miles, and owns and possess side tracks, depots, ferry privileges, and ferry boats, engines, and cars, and materials for the repair of the same, repair shops, and tools, and machinery, and fixtures connected therewith, as well as other property and materials used in the repairing and operating its said railroad, the said party of the first part *doth now therefore* in consideration of the stipulations of said party of the second part hereinafter set forth, hereby DEMISE, LEASE, and FARM LET to the said party of the second part, all and singular the said railroad from its said point of commencement in New Haven, to its terminus in New London, with all the rights of way, lands, depot grounds, buildings, repair shops, tools, machinery, engines, cars, and equipments, ferries, and ferry boats, rights, privileges, and franchises thereat appertaining and belonging, together with all materials of every kind and nature now owned by said party of the first part, for the operating and repairing of said railroad, except what may be hereinafter excepted, and the said party of the second part shall and may possess, use, and operate said Shore Line Railroad together with all the lands, property, buildings, rights, privileges, and franchises thereat appertaining and belonging, or that hereafter may appertain or belong to said road so fully and completed as the said party of the first part might or could do under its charter.

*To have and to hold* the said railroad, and all and singular the



premises unto the said party of the second part perpetually from the first day of November, 1870, for and during the full term of the continuance of the charter of the said party of the first part and any renewals or extensions of the same and as fully and freely to all interests and purposes as the said party of the first part might or could have, enjoy, use, or operate the same under its charter.

*And said party of the first part* doth also hereby covenant and agree that it will during the continuance of this lease do all acts incumbent upon it for the preservation of its charter and all its rights by virtue thereof, to keep up the proper organization of said Shore Line Railway, to choose all needful officers, keep all proper records, to hold all necessary meetings, and pass such votes, and do all such acts as may be necessary and proper to enable said party of the second part to carry out all the objects of this agreement, and to fully exercise and enjoy all the rights and privileges hereby conveyed, and said party of the second part is hereby further fully authorized to commence and prosecute at their own cost and risk, all such suits or actions at law or in equity, in the name and behalf of said party of the first part, as may be necessary to assert and maintain any rights secured to said party of the second part hereby, or to enforce damages for any injury thereto.

*The said party of the second part* in consideration of the foregoing stipulations, doth hereby agree to pay to said party of the first part as rent thereof, the sum of one hundred thousand dollars per annum, payable semi-annually, on the first Tuesday of January and July in each year, the said rent to commence from the first day of November, A. D. 1870.

*Said party of the second part* doth also further agree to keep said road and all its buildings, fixtures and appurtenances, in good and thorough repair during the full term of this lease, and will be liable and responsible to said party of the first part, for all damages, losses and costs, that may in any way happen unto said party of the first part, by reason of any accidents, defaults, negligence, or willful defaults or omission of the said party of the second part, or any of its officers, agents or servants, but in case the bridge across the Connecticut river shall be seriously injured or destroyed, it shall be optional with said party of the second part to restore the same, or to operate the road by means of a ferry.

*Any old materials* now owned by the said party of the first part, which are not suitable to be used in the repair of its said railroad,



and its buildings, bridges and equipment, shall not be deemed to be included in this lease, but may be removed and sold by said party of the first part, and said party of the second part shall pay said party of the first part the value of such fuel, oil and waste as said party of the first part may have on hand at the time this agreement takes effect, such value to be fixed by the two master mechanics of the parties hereto, and in case they disagree, by an umpire to be selected by them.

*The rent hereinbefore specified*, shall be paid to the treasurer of said Shore Line Railway, at his office in the city of New Haven, and if at any time said rent shall remain unpaid for the space of twenty days after the same becomes due, and shall have been demanded, or if said party of the second part shall fail to keep said road or its appurtenances in good repair, after reasonable notice of want of repairs or defects in said road, or its fixtures, said party of the first part may re-enter and re-possess itself of all the premises hereby conveyed or demised.

*In case the contract* between the New York and New Haven Railroad Company and the Hartford and New Haven Railroad Company for a union of interests, and for operating the railroads of both said last mentioned companies, under joint management, which said contract bears date the third day of August, A. D. 1870, shall be set aside by the courts, or by any legislative body, so that both of said railroads shall thereafter be operated separately as heretofore, then in that event, this lease shall cease and determine from and after three months written notice of either party to this agreement to the other party of its desire to terminate the same.

*Said party of the first part hereby reserves* the right, at its option, of renewing or extending from time to time, the mortgages now existing upon its road property and franchise, or of executing new mortgages upon said property, for the purpose of securing the payment of any bonds which may hereafter be issued by said party of the first part, provided however that all mortgages upon said property at any time shall not exceed in the aggregate, the sum of two hundred thousand dollars, and that the principal and interest of all present and future indebtedness of said party of the first, as well as taxes, which may be assessed thereon, and on their capital stock and dividends, shall be provided for and paid by said party of the first part, without recourse to the said party of the second part.

IN WITNESS WHEREOF, this instrument is executed by S. H. Scranton, President, and S. B. Chittenden, Vice President, of the

Shore Line Railway, and by Wm. D. Bishop, President of the New York and New Haven Railroad Company, they being each fully authorized thereto by said companies respectively, and the seals of said companies being also hereunto affixed, by authority of their respective boards of directors, *the day and year first before mentioned.*

*Signed, sealed and delivered in the presence of*

Signed, W. E. BARNETT.

Signed, R. M. FAKE.

Signed, S. H. SCRANTON,

President Shore Line Railroad.

S. L. R. R.

SEAL.

Signed, S. B. CHITTENDEN,

Vice President for Shore Line Railroad.

N. Y. & N. H.

SEAL.

Signed, WM. D. BISHOP, President,  
New York and New Haven Railroad Company.

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

On this 19th day of October, A. D. 1870, personally appeared, S. H. Scranton, President, and S. B. Chittenden, Vice President, of the Shore Line Railroad, who acknowledged that he executed the foregoing instrument for the purposes therein mentioned, as the free act and deed of the Shore Line Railway, and as his own free act and deed, before me.

Signed, W. E. BARNETT,

Notary Public.

STATE OF CONNECTICUT, }  
COUNTY OF NEW HAVEN, } ss.

Before me on this 19th day of October, A. D. 1870, personally appeared, Wm. D. Bishop, President as aforesaid, who acknowledged that he executed the foregoing instrument for the purposes therein mentioned, as the free act and deed of the New York and New Haven Railroad Company, and as his own free act and deed.

Signed, W. E. BARNETT,

Notary Public.



# REPORT

ON A BILL TO

Regulate the Rate of Interest,

FROM THE

JOINT STANDING COMMITTEE ON FINANCE.

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HARTFORD:

PRESS OF CASE, LOCKWOOD & BRAINARD.

1871.





# REPORT.

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GENERAL ASSEMBLY,  
May Session, 1871.

The Joint Standing Committee on Finance, to whom was referred House Bill No. 61, entitled "An Act to regulate the Rate of Interest," respectfully beg leave to report:

That they have had the said bill under consideration, and after full examination and discussion, find the following facts:

1. That the law against usury as at present existing, is the last of that class of statutes by which it is attempted to regulate the price of certain commodities. At various times laws have been enacted in the State by which the price of every article of dress, diet, or drink was fixed, and penalties prescribed for those selling at greater rates. The law against taking more than six per cent. for money is the only one that remains, and the same reason exists for its repeal as for the abolition of the other sumptuary statutes. As was long ago observed by an eminent philosopher and political economist, "Money is an universal Commodity, and is as necessary to trade as food is to life, and everybody must have it at what rate they can get it, and invariably pay dearer when it is scarce. You may as naturally hope to set a fixed price upon the use of houses or ships, as of money. Those who will consider things beyond their names will find that money, as well as other commodities, is liable to the same change and inequalities, and the rate of money is no more capable of being regulated than the price of land."

This is but another form of stating that the rate of money depends upon the natural law of supply and demand. When

money is plenty the rate of interest will be low ; when it is scarce it will be high. And your Committee find that the money market in this State is also affected by causes which are peculiar to the United States and to our locality. In no other country is there existing under the same general government, States where the rate of interest varies. All the States that surround Connecticut, either have no usury law, or there is a higher legal rate of interest allowed. Consequently capital, which should be employed at home, goes abroad for investment.

2. As a result of this state of things money is scarcer in Connecticut at the present time, and the legitimate demands of trade and commerce are harder to be supplied than in any of the neighboring states. Good business paper has been sold in Boston, New York, and Providence, at the rate of  $4\frac{1}{2}$  to 5 per cent., which could not be discounted at home for less than 7 per cent. Massachusetts has had for three years the statute of which the one reported by your committee is a copy, and under its influence capital has become more abundant, manufacturing interests have received a new stimulus, real estate has advanced with more rapid strides, and those who were least willing to abolish the old law, would be most reluctant to have it re-enacted. The experience is the same in Rhode Island. In fact both these states are illustrations of the maxim, "free trade in money is the only way of rendering it abundant."

3. These facts refute most emphatically the only objections ever urged against the repeal of the usury law, that it would make money hard to borrow. In fact it would make it more plenty, since capital flows freely to the points where there are fewest restrictions. Your committee find that there are more than twenty millions of dollars annually sent from this state for investment. Fully fifteen millions are sent from Hartford alone. Free this amount of capital from restriction, and it will remain here in greater quantity, making money more abundant and easier to be obtained.

Connecticut should be the state where capital is plenty, and borrowers readily supplied. Instead of that it is the favorite



foraging ground for foreign borrowers, who lead our law-abiding people into loss by inducing them to invest in securities promising a higher rate of interest, the basis of which they can not investigate. Millions of dollars have thus been lost, which would have remained at home, and helped to build up our industries, had not the law interfered between the lender and the borrower. The manufacturer, for example, was willing to pay such a rate as might be agreed upon; the capitalist was willing to lend, and yet the law being obeyed, prevented the one from paying, and the other from receiving, what both wished. The usury law says that the members of this General Assembly are competent to make bargains for all commodities, for butter, cheese, cloth, and goods, but they can not be allowed to make bargains for money, for fear they may be cheated. It seems to your committee that the statement of the case shows the absurdity of the statute.

4. There is another and more serious aspect of the case. That the law is constantly violated by banks, trust companies, and individuals, making short loans on business paper, is a fact known to every one. There are probably more than fifty millions of dollars loaned in this State to-day at more than six per cent. interest, to say nothing of the funded debts of cities, towns, and railroad corporations, where seven per cent., or even more, has been legalized. It is not well for any state to have on its statute book a law, the keeping of which would be commercial ruin or disgrace. It is, however, the fact, that should the defence of usury be put up against these usurious contracts, there would scarcely be a business house that would not be obliged to suspend, and all capital be driven from the State. Public opinion, however, is so strong against the law, that the man who agrees to pay more than the legal rate, and then puts up the defence of usury is considered dishonest. Such a man, though he has the law on his side, is called a wrong-doer. Your Committee do not think it for the interests of commercial morality that such a law should be retained.

5. A few of the inconsistencies of the present law may be pointed out. It fixes the same rate for good and poor



security. The one who loans on the best security has six per cent., and he who has no security whatever is allowed no more. In fact there is a greater injustice for the Savings Banks making permanent loans on real estate with double security, are allowed to take seven per cent. payable semi-annually in advance, while private individuals must take a smaller rate no matter how poor the security.

It cannot be said, therefore, that six per cent. is the just and natural rate of money since railroad and banking corporations are allowed by law to take more. The law should be repealed or made consistent.

For these reasons—that the usury law is against the natural law of trade; that it tends to make money scarce instead of plenty; that it hampers home industry and investment; that it is injurious to commercial morality, and tempts to constant violation of law; that it is inconsistent with the privileges accorded to corporations. Your Committee recommended its repeal, and the passage of the accompanying bill, which leaves the legal rate at six per cent. in the absence of any agreement, but allows parties to contract in writing for such rate as they please.

All of which is respectfully submitted,

L. BLACKSTONE,

*Chairman on part of the House.*

REPORT  
OF THE  
HOUSE SELECT COMMITTEE  
ON  
Senatorial Districts  
ON RESOLUTION PROPOSING AN AMEND-  
MENT TO THE CONSTITUTION.

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HARTFORD:  
PRESS OF CASE, LOCKWOOD & BRAINARD.  
1871.



# REPORT.

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HOUSE OF REPRESENTATIVES, }  
May Session, A. D. 1871. }

The Joint Select Committee on Senatorial Districts, to whom was referred the resolution in amendment of the Constitution for the increase and new apportionment of the senatorial districts, having reported adversely to the passage of said resolution, the said committee on the part of the House beg leave to report the accompanying resolution, proposing an amendment to the Constitution, and to recommend its passage, for the following reasons, to wit:

In 1828 an amendment to the Constitution was adopted, providing that after 1830 the number of senators should be not less than eighteen nor more than twenty-four. The number twenty-one was adopted, and from that time to the present, a period of forty years, our Senate has consisted of but twenty-one members.

Since the adoption of the Constitution the number of new towns that have been incorporated is forty, increasing the number of representatives in this branch of the General Assembly, so that now the proportion of senators to representatives is as one to eleven and one-half. In effect a senator has a power in the legislature equal to about twelve representatives. As the number of new towns is constantly increasing, this disproportion is also constantly becoming more glaring.

The population of the state has, during the same period, increased from 275,051 in 1820, to 537,996 in 1870, or nearly doubled.



It is presumed the wealth of the state has also increased in the same ratio.

It is provided in the Constitution that the number of districts may be changed or increased once every ten years, for the reason that the Senate is, in theory, the only branch of the General Assembly that is based on an equal apportionment of population; yet this wise provision is practically violated, for as there has been no change in the apportionment for forty years, the disproportion that has grown between the different districts is as glaring as that between the Senate and House of Representatives, as illustrated by the following table:

*Population of the Senatorial Districts in 1870.*

7 Largest Districts.		7 Intermediate Districts.		7 Smallest Districts.	
I.	59,298	XIII.	18,158	XX.	8,892
IV.	54,744	XVIII.	22,605	XXI.	13,123
V.	37,148	XIV.	20,377	IX.	13,842
X.	38,345	XI.	21,192	XVII.	15,085
VI.	29,490	III.	24,405	XV.	17,507
XII.	35,833	VII.	25,000	XVI.	16,140
XIII.	27,846	VII.	25,456	XIX.	13,512
<hr/> Total,		<hr/>		<hr/>	
	282,704		157,193		98,101
<hr/>		<hr/>		<hr/>	
Ave. per dis.		40,386		22,456	
Average per district for the whole State,				14,014	
				<hr/>	
				25,614	

From this table it appears that the seven largest districts contain more population than the other fourteen districts together.

The first district is the largest in the State. It is more than twice as large as the 2d, 7th, 3d, 11th, 14th, and 18th, more than three times as large as the 13th, 19th, 16th, 15th, and 17th, more than four times as large as the 9th and 13th, and more than six times as large as the 20th district, which is the smallest in the State.

The three cities of Hartford, New Haven, and Bridgeport, contain a population of 108,587, or more than the seven smallest districts.

If the State were divided into thirty-seven districts, it would make the average population per district 14,540, or about the present average of the seven smallest districts. So that the smallest districts would still retain their present representation by equalization.

If any further argument be needed to prove the necessity of an increase and a re-apportionment of the senatorial districts, it might be found in the fact, demonstrated by the experience of all legislatures, that a small body of men are more easily influenced in matters of legislation than a large body. The practice of the lobby, which has become a trade and a system, was not known in 1830. In forty years it has become a profession more lucrative to its members than all other sources of income. Its power and its corrupting influence both here and elsewhere is consequently on the increase. During the last forty years railroad, insurance, banking, and other corporations have grown to such giant proportions as to become kingly powers in our republican state, and to cause honest men to have grave apprehensions of danger to the purity of our legislation, and to the safety of our individual and political rights. Under these circumstances especially does wisdom teach us that "in the multitude of counsellors there is safety."

An increase in the number of districts cannot be made till 1881, under the provisions of the Constitution. So that the present state of the districts will continue for ten years longer with consequent increasing inequalities, unless a constitutional amendment authorize a change—the accompanying resolution is recommended for that purpose.

All of which is respectfully submitted,

ROGER WELLES,

*Chairman on the part of the House of Representatives.*



SIXTH  
ANNUAL REPORT  
OF THE  
SHEFFIELD SCIENTIFIC SCHOOL  
OF  
YALE COLLEGE:  
1870-71.

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Printed by order of the General Assembly.

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NEW HAVEN:  
PRINTED BY TUTTLE, MOREHOUSE AND TAYLOR.  
1871.



## State Board of Visitors:

CONSTITUTING, WITH THE SECRETARY OF THE SCHOOL, THE BOARD  
FOR THE APPOINTMENT OF STATE STUDENTS.

---

**May 1870 to May 1871.**

GOVERNOR,

HIS EXC. JAMES E. ENGLISH, New Haven.

LIEUTENANT GOVERNOR,

HIS HONOR JULIUS HOTCHKISS, Middletown.

STATE SENATORS,

HON. ELISHA JOHNSON, Hartford.

HON. LUCIEN W. SPERRY, New Haven.

HON. ELIAB A. CONVERSE, Middletown.

SECRETARY OF THE STATE BOARD OF EDUCATION,

REV. BIRDSEY G. NORTHROP, New Haven.

---

**May 1871 to May 1872.**

GOVERNOR,

HIS EXC. MARSHALL JEWELL, Hartford.

LIEUTENANT GOVERNOR,

HIS HONOR MORRIS TYLER, New Haven.

STATE SENATORS.

HON. EZRA HALL, Marlborough.

HON. ELISHA JOHNSON, Hartford.

HON. CHARLES L. GRISWOLD, Chester.

SECRETARY OF THE STATE BOARD OF EDUCATION,

REV. BIRDSEY G. NORTHROP, New Haven.

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SECRETARY OF THE SHEFFIELD SCIENTIFIC SCHOOL,

PROF. DANIEL C. GILMAN, New Haven.

## REPORT OF THE STATE BOARD OF VISITORS.

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*To the General Assembly of the State of Connecticut:*

THE undersigned, in behalf of the State Board of Visitors of the Sheffield Scientific School, respectfully report that the Board have as usual held two meetings in New Haven, at one of which the appointments of State students were made, and at the other careful examinations and inquiries were made in respect to the progress of the institution.

The Annual Statements of the instructors are submitted herewith, as containing full information in regard to the advancement which has been made during the last twelve months. By the liberality of a few individuals the school has been able to maintain its rank and to increase its corps of instructors, but it is still far from having an endowment adequate to the requirements of the State and country.

The most noteworthy gain during the year has been in a direction which is closely related to the manufacturing industries of the State. The appointment of a gentleman who is both a man of science and a manufacturer to be the professor of mechanic or dynamic engineering has been the occasion for expanding the instruction in that department of applied science.

By several generous gifts large accessions have been made to the books, models, diagrams, apparatus, and working plans illustrative of the science of mechanics, and a large hall has been fitted up for instruction in this department.

The progress of the school in other respects has been good. The number of scholars enrolled on the annual catalogue was one hundred and twenty-three. The State scholarships have all been taken up, and some of the most promising students are included among those who receive this aid.

JAMES E. ENGLISH,

*Chairman of the State Board of Visitors.*

BIRDSEY G. NORTHROP,

*Secretary of the State Board of Education.*

NEW HAVEN, MARCH 13, 1871.

# OFFICERS.

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## CORPORATION.

THE PRESIDENT AND FELLOWS OF YALE COLLEGE.

## STATE BOARD OF VISITORS.

THE GOVERNOR, LIEUT.-GOVERNOR, THREE SENIOR SENATORS,  
AND SECRETARY OF THE BOARD OF EDUCATION.

## COUNCILLORS.

Hon. JAMES E. ENGLISH, New Haven.  
Hon. MARSHALL JEWELL, Hartford.  
Hon. JOSEPH R. HAWLEY, Hartford.  
Hon. OLIVER F. WINCHESTER, New Haven.  
JOSEPH E. SHEFFIELD, Esq., New Haven.  
Prof. JAMES D. DANA, LL.D., New Haven.  
HENRY FARNAM, Esq., New Haven.  
M. DWIGHT COLLIER, M.A., St. Louis.

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## Instructors.

WILLIAM A. NORTON,  
Civil Engineering and Mathematics.

WILLIAM D. WHITNEY,  
Linguistics and German.

SAMUEL W. JOHNSON,  
Agricultural and Analytical Chemistry.

WILLIAM H. BREWER,  
Agriculture.

DANIEL C. EATON,  
Botany.

EUGENE C. DELFOSSE,  
French.

LOUIS BAIL,  
Drawing.

OSCAR D. ALLEN,  
Metallurgy and Assaying.

DANIEL H. WELLS,  
Analytical and Descriptive Geometry.

SIDNEY I. SMITH,  
Zoology.

JOSEPH S. ADAM,  
Determinative Mineralogy.

CHESTER S. LYMAN,  
Physics and Astronomy.

WILLIAM P. TROWBRIDGE,  
Dynamical or Mechanical Engineering.

GEORGE J. BRUSH,  
Metallurgy and Mineralogy.

DANIEL C. GILMAN,  
Physical Geography and History.

OTHNIEL C. MARSH,  
Palæontology.

ADDISON E. VERRILL,  
Zoology and Geology.

MARK BAILEY,  
Elocution.

THOMAS R. LOUNSBURY,  
English.

WILLIAM G. MIXTER,  
Elementary Chemistry.

ALBERT B. HILL,  
Surveying and Mechanics.

CHARLES S. HASTINGS,  
Assistant in Physics.

# ANNUAL STATEMENT

## OF THE GOVERNING BOARD.

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IN presenting their Sixth Annual Statement in respect to the progress of the SHEFFIELD SCIENTIFIC SCHOOL of Yale College, the Governing Board refer with pleasure to the fact that the liberality of many individuals in New Haven and New York has so far enlarged the income of the school as to render possible many desirable improvements. About one half the sum which it was proposed to raise for the immediate endowment of this institution has already been secured, and thus far but one new addition to the capital has been made from persons resident elsewhere than in the cities just named. We have reason to hope and believe that before long other gentlemen, recognizing the importance of such a school as this, and understanding the spirit with which it is carried on, will render substantial assistance in making it more complete and more serviceable in the education of young men.

A special statement of the progress of the subscription will be printed in another place. Here it may be sufficient to say that a considerable part of the increased income has been directed to the enlargement of "the teaching force," that is to say, of the number of instructors, and of the time which some of those heretofore employed devote to their classes. Two of the professors who were on partial salary have been placed on full salary, a new professor has been appointed, and the number of permanent assistants has been increased.

For all the friendly contributions which have been received and for all the good words which have been spoken in respect to the Sheffield Scientific School, the Governing Board are constantly grateful.



## 1. EXPANSION OF THE INSTRUCTION IN ENGINEERING.

The most noteworthy result of this recent movement has been the enlargement of the department of Mechanical Engineering, which was established in the Sheffield School some years ago.

Prof. William P. Trowbridge, a graduate of West Point, an officer of the U. S. Engineers and of the U. S. Coast Survey, and recently the manager of the Novelty Iron Works in New York City, entered upon the duties of his post as Professor of Dynamic Engineering at the beginning of the present year of instruction. By the kindness of Prof. John F. Weir and the authorities of the Yale School of the Fine Arts, a large hall in the basement of the Art-building erected for Yale College by the late Mr. A. R. Street has been placed for the time being at the service of the Scientific School, and has been conveniently fitted up for Mr. Trowbridge's instruction.

The hall serves the double purpose of a class-room and a cabinet illustrative of the science and art of mechanics. Here are now arranged the various models, diagrams, patterns and pieces of mechanism which constitute the cabinet founded in memory of the late Thomas Fassitt Collier of St. Louis,—a considerable part of them having been bought in Europe by Prof. C. S. Lyman. Here also have been brought together and conveniently arranged the extraordinary collection of Working Plans and Drawings, mentioned in our last year's report as the gift of the Novelty Iron Works in the city of New York, received through the kindness of Howard Potter, Esq. Other gifts of models and apparatus are also arranged in this hall, serving as constant aids to the instructor and incitements to the scholar.

Heretofore in our Annual Statements special prominence has been given to one important matter in addition to the necessary current report of progress. In view of the circumstances just stated, the Board invite attention at this time to the following views which are presented by Prof. W. P. TROWBRIDGE in respect to instruction in Dynamic Engineering, and in respect to the Surveys of large Cities and Towns.

### A.—Science of Dynamic Engineering.

The science of Engineering and the professional practices connected with it have of late years undergone a progressive development, the basis of which has been the use of machinery, in all its various forms, for commercial, industrial and domestic purposes.

Through this agency modern enterprises have been vastly multiplied, and private corporations have everywhere assumed proportions as regards capital and numbers of men employed which a few years ago would have existed only under the patronage of governments. There has thus arisen a demand for professional engineers in a new field distinct from that so long occupied by civil engineers. And as early as 1863 the Governing Board of the Sheffield Scientific School instituted a separate course of instruction in this new direction.

There are many reasons or considerations which render it necessary and advisable thus to provide two courses in Engineering, one to embrace the line of studies and applications which belong to Civil Engineering, and the other those which belong to the more modern science or profession of Dynamic Engineering.

These reasons are chiefly that professional practice and occupation in these two branches of the subject, respectively, are entirely different one from the other, and involve different elements of knowledge in the sciences and in the practical arts.

In Civil Engineering the practice of the profession is confined to the erection of permanent structures. No elements of power, motion, or work are involved, except as mere temporary auxiliary aids, while Dynamic Engineering is based exclusively on the continuous and perpetual applications of motion and force in accomplishing useful work.

The *elementary* studies in this new course differ very little from those in the Civil Engineering course, but there is a constant divergence as the student advances. The practice of the art of instrumental drawing becomes more complex and difficult in its applications to machinery; the applications of mathematics more extended, requiring more exact and definite knowledge of principles and rules, on account of their more frequent recurrence in every-day practice; and it is found essential to introduce more thorough instruction in the sciences of applied mechanics, chemistry, and physics.

In Civil Engineering the application of the science of mechanics is confined substantially to the simple problems of statics, while in Dynamic Engineering this branch of mechanics has a secondary importance to that which treats of the more complex and difficult laws which govern the relations of force and motion combined.



*Relations of Theory and Practice.*

In both branches of Engineering, as indeed in all departments of instruction in the applied sciences, it has become apparent, in view of the great extent of ground to be gone over and the multiplicity of applications of the same general laws, that a more comprehensive view of the methods of instruction must be taken. It has become of vital importance that the mere comprehending of principles and laws as they are enunciated or demonstrated, and the mere accumulation of facts or truths, shall not be regarded as the limit and aim of instruction. But the student is to be taught, while pursuing any course of study or the investigation of any special subject, under what circumstances and in what manner the knowledge he is acquiring is to be made useful, through the exercise of his own intelligence. This involves, first, impressing on the mind by every possible means such a knowledge of the fundamental principles of every subject taught that they shall be retained in the memory; and second, the bearing or use of those principles, in the processes of investigation or reasoning, which belong to the profession to which they are applicable.

The practice of instrumental drawing should comprehend not only the learning of an art, useful in every sphere of life, as an aid to the memory and to fix the conceptions of the mind; but the course of instruction should embrace the actual delineation of various kinds of structures and machines of the most approved character. It should also comprise the designing of such structures for various purposes when the student shall have acquired the knowledge of the principles of mathematical and mechanical science necessary for the solution of special problems corresponding to those which are to be encountered in practice.

Thus while the art of drawing cultivates the use of the hand, the eye, the exercise of the memory, and the imaginative powers of the mind, it becomes a means of fixing the perceptions, of expressing the thoughts, and of the solution of mathematical problems, always at command, and assists rather than obstructs the higher exercise of the powers of the intellect.

The abstract science of mathematics is to be regarded from the same point of view. The highest view which can be taken of this study, regarded merely as a disciplinary study, is that which points out its uses. Unconnected with its useful applications in explaining or describing natural phenomena and laws, or solving problems relating to the properties of matter or the relations of

lines and surfaces, of motion and force, its full significance is not brought out.

The chief value of this science consists in its giving results through the mere mechanical use of signs and symbols which the mind could not otherwise deduce, and the facility or readiness with which it may be employed by any person determines to him its greatest value.

The same may be said of the science of mechanics, of physics, of chemistry, and of metallurgy. In all these branches of natural and applied science, while a knowledge of facts, of laws and of phenomena is acquired, there still remains the higher and more important kind of knowledge to be imparted, viz.: a clear and distinct separation of the fundamental principles and laws from the secondary and unimportant, though vastly more numerous, phenomena connected with their application or occurrence; and it should be a prominent part of instruction to point out to students the proper uses of the various branches of knowledge which they may acquire, in order that they may be taught to be self-reliant, dependent only on truths, facts, and laws; but not upon precedents nor even rules, unless such precedents or rules are clearly in accordance with fundamental principles.

*The demand in this country for Dynamical Engineers.*

The course in Dynamic Engineering is intended to meet in this respect a want long felt in this country. It embraces the applications of the science of heat as a motive power, comprising the modes of generating and utilizing steam, the constructing of the special forms of steam machinery applicable to ships, railroad transportation, mines, furnaces, mills, &c. It embraces also the utilization of water-power, comprising the theoretical principles which govern the use of this natural source of energy, and the construction of the machinery and apparatus by which such use is accomplished. It includes the detailed plans for the erection of mills and manufactories, the construction of tools, the preparation of materials in forges and rolling mills.

All these branches of commercial and industrial enterprise form fields of employment, for which it has become the duty of special institutions of learning to provide by supplying the facilities for instruction and learning necessary for those who may wish to choose these fields of usefulness for their spheres of labor and occupation.



The question is frequently asked by students and applicants for admission to the Sheffield Scientific School, what opportunities for occupation or employment are open to graduates in the course of Dynamic Engineering? This question cannot be answered specifically in any other manner than by referring to the vast number of industrial establishments throughout the country devoted to manufactures of all kinds, including raw materials, tools, machinery, fabrics, and implements or articles needed for domestic economy; in all of which persons of superior training are required. But a more general and perhaps more satisfactory answer to the inquiry may be given.

Those who follow the profession of Dynamic Engineer are more or less connected with the active business operations of the country, having opportunities of becoming identified with special interests and of obtaining fixed and permanent positions. There is thus always before a young man in this profession the prospect of personal independence.

On the other hand, as a strictly professional occupation, those who wish to become consulting engineers find a wide range of subjects on which their skill and judgment are consulted, especially in private and individual enterprises, which are even more varied and numerous than public undertakings. In this respect the profession of Dynamic Engineering corresponds more closely with that of Architecture, in which the chief source of employment arises from the demands of private individuals or corporations.

While prominence is thus given to the subject of Dynamic Engineering, attention is likewise especially called to the course in Civil Engineering in a manner about to be stated with reference to the improvements of towns and cities.

The newer branches of the profession, as well as the familiar departments, call for large numbers of young men; and the day is not distant when every compact city or town having more than ten thousand inhabitants will require the constant advice and service of a competent city engineer. The grading and laying out of streets, the construction of water-works, and of sewerage and drainage systems, the establishment of parks and promenades, the building of substantial wharves and piers, the removal of whatever is prejudicial to the public health, and other kindred occupations, are likely to call for a much greater number of competent advisers than this or any institution can furnish for many years to come.

In this connection it is well to add that the mathematical studies of the engineering course, in connection with the study of building materials and cements, under the guidance of the professors of mineralogy and chemistry, are a good basis for the profession of the Architect. Much study in the specialities of that profession will of course be required, but many of the preliminary essentials may be gathered in this school of science as already organized.

With reference to the improvements of cities, a true or orthographic map of the surface of the land is now an important requisite. The following paper discusses the preparation of such a map.

#### **B.—Orthographic Surveys of Cities.**

The application of the principles of Geodetic and Plane-table Surveying to the surveys of cities has recently been thoroughly developed by the United States Coast Survey in the survey of the city of Portland, Maine, and in some other instances, and the advantages of the system thus worked out, over the customary but radically defective methods so long in use in this country, have become so apparent, that the Governing Board of the Sheffield Scientific School are about to take measures to introduce a course of instruction having for its object the training of young men in the practice as well as the theory of this system.

To accomplish this end it will be essential to give students a large amount of practice with the plane-table, combined with the theodolite and level, in the field; and through the kindness of Prof. Peirce, Superintendent of the Coast Survey, advantage will be taken of the presence of the party of Mr. R. M. Bache (United States Coast Survey) in this vicinity during the coming season, to initiate several of our graduates in the use of the instruments and in the methods employed, in order that they may become instructors to others; so that in a very short time it is hoped that graduates of the School may be fully qualified for conducting City Surveys by the more accurate processes which the practice of the Coast Survey has given to the country.

The rapid growth of the cities of this country is a matter of universal observation and comment, and everyone who has lived for a long time in one of these growing towns is familiar with the manner of their expansion. It is seldom that the first founders of a small town have sufficient faith or foresight in regard to the future extensions of their municipal jurisdiction to enable them to lay



out definite plans for such extensions, except perhaps the mere drawing on paper of what may become the lines of future streets. From time to time new areas are taken into the city limits; the streets already in existence are extended or new ones projected; and new districts, which before had been occupied as farm lands, become thickly populated. Where the land was at one time the property of a single individual and was bought and sold by the acre, and estimated at a certain number of acres, more or less, it becomes divided among hundreds and perhaps thousands of proprietors, and is valued and sold by feet and inches.

Whatever plan may have been adopted for the directions and locations of streets and squares, new questions of the highest importance constantly arise in regard to grades of streets, the locations of sewers, and the provisions for drainage; questions not of convenience, merely, to the population, but of vital importance to the health of the inhabitants. One set of men plan one portion of the city; and years afterwards, when they are dead and gone, and their ideas forgotten, another set of men plan another district; the old drains or sewers are found to be too small, or not located to meet the necessities of the new improvements; streets must be again dug up for new sewers, and old grades altered to conform to the new, and possibly the natural lines of drainage for the new localities have been completely blocked up by foundation walls of buildings; and there is no resource but to allow the water that falls upon the surface to remain stagnant in a water-soaked stratum beneath the surface. There having been no unity of design in anticipation of so great an expansion, the evils which follow, however great they may be as regards health and comfort, must often be suffered to exist on account of the great expense which would attend any reasonable attempt to remedy them.

But these evils, defective drainage and its fearful consequences, the alteration of grades, and the necessity for building enlarged sewers, involving perpetual assessments, are not the only evils which are entailed on successive generations. Few people are aware of the fact that the process by which streets are laid out and the land ultimately divided up among its thousands of owners is radically defective. We do not refer to surveys by the magnetic compass: that instrument has long since been banished from the list of surveying instruments, where any attempt at accuracy is made; but to the approved processes which are employed by the best city surveyors at the present day.

The defects do not lie in the instruments which are employed, the theodolite, transit, spirit-level, and chain or steel tape-line: nor in a want of skill in the surveyors; but in the system which is followed in making use of these valuable instruments. The transit is an instrument designed to enable a surveyor "to run a straight line," to use a well understood form of expression; that is to say, to enable a surveyor to trace out a line on the surface of the earth which shall lie in one vertical plane; or to trace the line in which a vertical plane intersects the earth's surface. For this purpose it is the best and perhaps the only reliable instrument. The spirit level is employed to determine the relative altitudes of the points of such a line, or of any two or more points above a fixed plane or point which is chosen as a reference. But neither of these instruments furnishes the means or facilities for measuring horizontal distances; and the relative horizontal positions of lines and points must be determined by some other process. Here lie the defects of the system. The very measurements which, of all others, are to constitute the map, and by which the relative positions of lines and points estimated in horizontal directions are to be determined, the measurements and distances which are to determine proprietary lines, where the ground may be valued at hundreds of dollars per square foot, are left to the deceptive and false determinations which result from chain or tape-line measurements along undulating surfaces. The true idea of a map of a city is that it is a projection upon a horizontal plane of the boundaries and division lines of the site. But no city map fulfills this condition that is constructed by the methods of surveying at present in use. No means are taken to reduce the measurements to horizontal projections, except perhaps in rare instances where the declivities are very great, and even in such cases the partial and inaccurate reductions only add to the general confusion. It has been supposed doubtless that the errors arising from the tape-line or chain measurements along undulating surfaces are unimportant; and yet there is probably not a city survey in this land in which continued adjustments of property lines have not been found necessary. One city surveyor lays out property on streets which are not graded, and his successor in attempting to reproduce the former dimensions and distances after the grades have been established and the embankments and fillings executed, finds that these dimensions and measurements will not fit the ground, and with denunciations of the errors of his predecessors, he proceeds to make adjustments.



The owner of a house finds that his wall stands several inches upon his neighbor's ground, or that he does not own "down to the center of the earth and up to the sky" of quite as much area as he thought he did, and litigation is resorted to, to settle the difficulty.

The true cause of all these difficulties may be easily explained. Let us suppose that the site of a town or city projected upon a horizontal plane is a true square, but that the surface of the ground is undulating. To begin with the exterior boundaries: these are usually run from one fixed land-mark to another; in the case under consideration these landmarks may be the four corners of the square.

The surveyor proceeds to run straight lines with his transit and to measure the lengths of the sides with his chain. The ground being undulating the lengths measured along the surface are greater than their true horizontal projections, and the four sides, as measured, will all be greater than the true boundaries, and all different from the others; and the map drawn from such a survey will not appear as a square, as it should, but as an irregular polygon of four sides. So with lines running across the site; wherever a measurement is made upon an inclined surface, that measurement will be too great, if used without correction, and the result will be a general and irregular distortion. Lines which are first laid out on paper and then transferred to the ground, will show gores and overlappings, attributable to unavoidable errors of the survey; and the remedy adopted is to make the best adjustment possible under the circumstances. Succeeding surveyors find no base lines or standard distances to measure from, because every change in the surface produces changes in the measurements between established points.

Since the true theory of a city map is, and should be, that it is a horizontal projection of the lines of streets and of division and boundary lines, it is evident that such a map, if enlarged to the scale of the natural lines of the city and spread over the city, should be so accurate that each line and point of the map would fall upon its original in nature. Such a map it is impossible to make by the present methods, whatever may be the skill of the surveyor or the perfection of the instruments; and the errors introduced by these methods have been the fruitful source of litigations, heavy expenditures in the alteration of lines of streets and buildings, and of general uncertainty and inconvenience.

*Use of the Plane-table.*

The true remedy for all the difficulties of drainage, sewerage-grades, the want of fixed lines of division, and of correct boundaries, may be found in the use of the PLANE-TABLE.

This instrument has long been known, and is described briefly in all good works on Surveying; but though simple in its design, there is no instrument which requires so much practice in its use in order to bring out and employ its valuable qualities.

To survey a city with this instrument a single line is first measured by an apparatus which gives the true horizontal length of the line with great precision. With this line as a basis a series of triangles is established covering the whole site, the angles of the triangulation being measured with the theodolite and the length of the lines calculated trigonometrically. There are thus established a number of fixed points, the distances of which from each other depend in no measure upon the configuration of the surface, but these points are the true horizontal projections of such points on a plane of reference, which plane is represented by the map. The plane-table is then employed to continue this triangulation by dividing up the large triangles, even to the most minute distances; every topographical feature of the site being determined by the intersection of geometrical lines upon a horizontal plane: division lines, the lines of buildings, lines of streets, and all other features, are thus determined, and the connecting lines between them drawn in on the ground; so that the map of the city is made not in the office, but in the field, and presents when completed, not the distorted results of surface measurements, but the true projections of the lines and points of the surface without regard to elevations and depressions.

In connection with this system of geometrical and orthographic surveying the spirit-level is employed in combination with the plane-table to determine the altitudes of all points of the site. For this purpose the lines of intersection of horizontal planes, three and six feet apart, are marked out on the ground by the level, and the curves thus formed are transferred to the map by the plane-table; so that the completed map presents not only the true horizontal projections of the lines of the city, but also the horizontal projections of a system of curved lines which pass through all points at altitudes of 3, 6, 9 and 12 feet respectively above the plane of reference. The map thus constructed is a miniature representation of the surface delineated, not only in horizontal, but in its vertical features.



*Value of a true City Map.*

With such a map as a basis all the important problems of city engineering become easy of solution. The lines of natural drainage and the planes of the water-sheds become apparent on a simple inspection; and thus the course as well as the magnitudes of the drains and sewers may be indicated with unerring certainty. The establishment of the grades of the main avenues and cross streets may be adjusted in such a manner as to avoid unnecessary expense in cutting and filling; and with reference also to the all-important system of drains and sewers.

The study of such a map will enable an engineer to point out those areas which should not be built upon until they are raised by filling to the proper level; and private improvements are thus rendered secure from subsequent changes or alterations.

The first essential element to successful city engineering thus lies in a thorough orthographic survey, without which all engineering operations must, to a greater or less extent, be imperfect in design, because they are not based upon the true topographic features of the site to which they are applied.

Among all the great benefits which the United States Coast Survey has conferred on this country, the development of this true system of city surveying is among the most important; every city in the land should avail itself of this method at the earliest possible moment, in order to avoid the perpetual propagation of the evils and defects of the existing surveys. In the case of the city of Portland, as it will be for all the Atlantic coast cities, the primary and secondary work of triangulation of the coast already made by the Coast Survey, furnishes a ready basis for city maps by the plane-table. For cities thus situated the revision of their maps will be comparatively simple and inexpensive.

The only difficulty that still presents itself is a deficiency of men who are expert in the use of the plane-table, which is still a new instrument to general practice. To supply this want as far as practicable, the Sheffield Scientific School of Yale College contemplates establishing the course of instruction to which reference has been made.

## 2. EXPANSION OF THE INSTRUCTION IN THE ENGLISH LANGUAGE.

During the past two years the instruction in the department of English has been extended so as to embrace many subjects, which have not as yet been included even in the course of most classical

schools. As this, however, has hitherto been deemed in some respects an experiment, it has not been thought best to make to it, in our previous reports, anything more than a brief allusion. The success which the experiment has met with in supplying a want which has long been felt, and which will doubtless continue to be more and more felt, has been decided enough to warrant the retention in all its essential features, of the course already pursued, necessarily making such changes as may be demanded by the wants of those seeking instruction, or such as additional experience may show to be desirable.

The course in English includes both the study of the language and of the literature. In respect to the former, so much of Anglo-Saxon and early English is taught as to enable the student to gain clear and connected knowledge of the origin and history of the language, of the successive changes it has undergone, and of the rise and development of the grammatical forms, idioms and leading characteristics of modern English. The purely grammatical and linguistic study is confined mainly to the writers of the Anglo-Saxon and early English period, it being deemed desirable in the case of the great classic authors of our tongue to entirely subordinate philological to literary culture, the latter being made specially prominent, the former is pursued with them so far only as it contributes to the comprehension of the writer's meaning, and of the changes that have gradually taken place in the history of our speech. Sufficient, however, of linguistic study, is required to enable the student to read any early English author with facility: for those who wish to carry this course further other arrangements will be made.

The study of the literature consists mainly in the study of the works of English authors themselves. For obvious reasons the greatest authors are selected. In the course as now constituted, students read Chaucer, Spenser, Bacon, Shakespeare, Milton, Dryden, and Pope. When the term of study is extended to four years, it is hoped to bring the work down so as to include the writers of our own times; but under present circumstances it has been deemed best to confine the attention of students to the more prominent older authors of our tongue, who, though much talked about, are generally very little read.

For the purpose of combining, as far as possible, the study of the language with that of the literature, it is an essential part of this plan that writers should be taken up in chronological order. It is likewise essential to the literary culture sought to be imparted



that either a whole work of an author should be studied, or a part forming by itself a complete whole. This system has now been pursued here long enough to warrant us in expressing our satisfaction with its results. Having outlived the period of experiment it will hereafter be included as a regular part of the course.

In connection with this study practice in essay-writing will be a subject of special attention, subjects being drawn as far as possible from the literary history of the period whose representative author is in the act of being studied.

In the English Language Mr. Thomas R. Lounsbury has been during the last year and a half the instructor.

The study of the general principles of Linguistic Science is carried on as heretofore under the instruction of Prof. Whitney.

### 3. EXPANSION OF THE STUDY OF DRAWING.

In future it is the intention of the Governing Board that every student shall devote more time to Drawing than has heretofore been allowed. During the past year a committee of the instructors has been in conference with Professor Weir of the Yale School of the Fine Arts, in reference to the best mode of securing for the Sheffield students a greater amount of practice, and also in regard to the principles and method which should govern this practice. A full report on this subject may be expected at a future time.

Already the students in the Scientific School have begun to receive instruction in elementary drawing in the rooms of the Art School, and have had the advantage of seeing and studying the casts, diagrams, models, and works of art which are rapidly accumulating in that department of Yale College.

It is expected that hereafter the Freshmen will spend a considerable amount of time in elementary drawing, in order that the eye may be trained to accurate observation and the hand to exact delineation of any simple object. As the classes divide into their special sections during the later years of the course, some of the students, especially those in the engineering studies, will naturally concentrate their attention upon instrumental drawing of various sorts; while others, especially the students devoted to natural history, and those of the select course, will continue to be practised in free hand drawing.

Important discipline of some of the faculties of the mind will be secured by this course of instruction; and it is hoped that not a few will become expert in the art of expressing with the pencil that which they have seen or devised.

## 4. PUBLIC LECTURES.

The sixth annual course of Lectures to mechanics and others has been given during the past year. The lecturers and their subjects are indicated in the annexed programme.

## PROGRAMME.

1. Monday, Feb. 6.	Placer Mining in California, - - -	W. H. Brewer.
2. Thursday, " 9.	Sound, - - - - -	C. S. Lyman.
3. Monday, " 13.	Spots on the Sun, - - - - -	A. W. Wright.
4. Thursday, " 16.	Original Investigations on Economy in the use of Steam in Steam Engines, -	C. E. Emery.
5. Monday, " 20.	Surveying in the Western Mountains,	J. T. Gardner.
6. Thursday, " 23.	The Coal-Tar Dyes, - - - - -	S. W. Johnson.
7. Monday, " 27.	Work and Wealth, - - - - -	B. G. Northrop.
8. Thurs., March 2.	Polarization of Light, - - - - -	G. F. Barker.
9. Monday, " 6.	Metamorphosis in Animals, - - -	S. I. Smith.
10. Thursday, " 9.	Deep-Sea Soundings, - - - - -	W. P. Trowbridge.
11. Monday, " 13.	Deep-Sea Life, - - - - -	A. E. Verrill.
12. Thursday, " 16.	English Orthography, - - - - -	T. R. Lounsbury.
13. Monday, " 20.	Theory of Combustion, - - - - -	W. G. Mixter.
14. Thursday, " 23.	Aluminum, - - - - -	G. J. Brush.
15. Monday, " 27.	Connecticut in the light of the New Census,	D. C. Gilman.

Five of the lecturers above named, Prof. Wright, Mr. Emery, Secretary Northrop, Mr. Gardner and Dr. Barker, are not instructors in the School, and special acknowledgements are due to them for their coöperation.

By invitation of some of the friends of the School in Hartford, and of the officers of the Young Men's Institute in that city, several of these lectures were repeated in Allyn Hall, as follows:—

1. On the Rocky Mountains, - - - - -	W. H. Brewer.
2. " Deep-Sea Soundings, - - - - -	W. P. Trowbridge.
3. " Sound, - - - - -	C. S. Lyman.
4. " English Orthography, - - - - -	T. R. Lounsbury.
5. " Metamorphosis in Animals, - - - - -	S. I. Smith.
6. " Deep-Sea Life, - - - - -	A. E. Verrill.
7. " Weeds, - - - - -	D. C. Eaton.
8. " Connecticut in the Light of the New Census, -	D. C. Gilman.

For the purpose of bringing the aims of the School before leading men in different parts of the State, meetings were held, sometimes in public halls and sometimes in private parlors, during October last, in several of the towns of the State.

To the various gentlemen by whose kindness the arrangements for these meetings were perfected, and to those whose hospitality the speakers received, the thanks of the School are particularly due.

The places thus visited were New Britain, Norwich, Woodstock, Danielsonville, Birmingham, Litchfield, Waterbury, Bridgeport, Stamford, Norwalk, Danbury and Meriden. Similar meetings were also held in New Haven, as in the previous winter they were in Hartford.

On the seventh of October, Prof. Trowbridge delivered in Sheffield Hall his Inaugural Address on the Profession of the Dynamic Engineer. It was published at the expense of one of the benefactors of the School, and a second edition was printed and circulated by Henry Carey Baird, Esq., of Philadelphia.

### 5. ANNIVERSARY AND PRIZES.

The Anniversary of the School was held on Monday, July 18th, when the following themes were discussed by the candidates for degrees. Those persons whose names are prefixed with a star read their discourses in the evening; the others were presented in the morning.

#### GRADUATES OF 1870,

#### WITH THE SUBJECTS OF THEIR GRADUATING THESES.

##### DOCTOR OF PHILOSOPHY.

NELSON POWELL HULST, A.B., Ph.B., *New Haven*. A Chemical Examination of the "Malleable Iron Process."

##### CIVIL ENGINEERS.

AUGUSTUS JAY DuBOIS, Ph.B., *New Haven*. Design of a Parabolic Truss Railway Bridge.

ALBERT BANKS HILL, Ph.B., *Redding*. Design of a Steel Railway Bridge.

##### BACHELORS OF PHILOSOPHY.

\*JAMES WHITIN ABBOTT, A.B. (Engineering), *Yarmouth, Me.* "On a Two-foot gauge Railway in Wales."

HENRY MOORE BAILEY, (Select), *Rutland, Vt.* "On the Marble Quarries of the Neighborhood of Rutland."

CHARLES THRUSTON BALLARD, (Select), *Louisville, Ky.* "On Sheep Raising in the United States."

THOMAS GRAY BENNETT, (Engineering), *New Haven*. "On the Works of the Fair Haven Water Company."

TOWNSEND STITH BRANDEGEE, (Engineering), *Berlin*. "On the Hoosac Tunnel."

\*DANIEL SEYMOUR BRINSMADE, (Engineering), *Trumbull*. "On the Water Power at Birmingham, Conn."

\*CHARLES PETER BROOKS, (Engineering), *Blooming Cove, N. Y.* "On the Elevated Railroad in New York."



- THOMAS ELWOOD CALVERT, (Engineering), *Newtown, Penn.* "On the Pneumatic Underground Railway in New York."
- \*FREDERIC HOSEA CHURCHILL (Select), *New Britain.* "On Technical Education in its relation to American Manufactures."
- DORR CLARKE, (Engineering), *Batavia, N. Y.* "On Leffel's Double Turbine."
- ALFRED RONALD CONKLING, (Mining), *New York City.* "On the new Barytes Mines in Cheshire, Conn."
- \*JUSTUS HERBERT GRANT, (Engineering), *Auburn, N. Y.* "On Permanent Way."
- \*CHARLES SHELDON HASTINGS, (Engineering), *Hartford.* "On the Properties of Réseaux."
- \*WILLIAM ALFRED HINDS, (Select), *Wallingford.* "On the Recurrence of Civilizing Forces."
- EDWARD VAN BUREN HOES, (Select), *Ottawa, Ill.* "On Trade Unions."
- WILLIAM RUFUS HOPSON, (Select), *Bridgeport.* "On the Vegetable Kingdom in its Relation to Man."
- HENRY CORRELL HUMPHREY, (Chemistry), *Stamford.* "On Cumarin and Cumaric Acid."
- FRANCIS ASBURY LOWE, (Engineering), *Washington, D. C.* "On the Geared-screw type of Marine Engine."
- \*WILLIAM DENNIS MARKS, (Engineering), *St. Louis, Mo.* "On the Best Form of a Ship for Speed," with an original example.
- \*ARTHUR WOODS RICE, (Engineering), *West Meriden.* "On a Preliminary Survey of a Branch Railway."
- GEORGE DOUGLASS ROSEBERRY, (Chemistry), *Pottsville, Pa.* "On Anthracite Coal and Coal Mining."
- ALFRED STANTON, (Engineering), *Sligo, Md.* "On the Desirability of Irrigation in this Country."
- CLARENCE AUGUSTUS WARREN, (Engineering), *Louisville, Ky.* "On Railway Rails."
- \*JOHN GEORGE WATSON, (Engineering), *Ayr, Canada.* "On an Improved Mowing and Reaping Machine."

THE FOLLOWING PRIZES WERE AWARDED AT THE ANNIVERSARY:

1. *For excellence in the Engineering Studies of the Senior Year.*

A prize of \$20.00, divided between JUSTUS H. GRANT of *Auburn, N. Y.*, and ARTHUR W. RICE of *West Meriden*; with honorable mention of CHARLES S. HASTINGS of *Hartford.*

2. *For excellence in Chemistry.*

A prize of \$20.00, to HENRY C. HUMPHREY of *Stamford.*

3. *For excellence in Mineralogy.*

A prize of \$20.00, to BERNARD J. HARRINGTON, B.A., McGill University, *Montreal.*



4. *For the best English Essay.*

A prize of \$20.00, to WILLIAM A. HINDS of *Wallingford*, for "an Essay on the Physical Structure of England in relation to her History."

5. *For excellence in French.*

A prize of \$10.00 to JOHN G. WATSON of *Ayr, Canada*.

6. *For excellence in German.*

A prize of \$10.00, to TOWNSEND STITH BRANDEGEE of *Berlin*.

7. *For excellence in Mathematics of the Junior Year.*

A prize of \$20.00, to CHARLES W. GRISWOLD of *New Britain*.

8. *For excellence in the Freshman studies.*

A prize of \$20.00, to DANIEL W. HERING of *Johnsville, Md.*; with honorable mention of J. J. ABBOTT of *Yarmouth, Me.*, Second in Rank.

At the examination for admission to the Freshman Class in the autumn of 1870, the prize for excellence was awarded to Edward J. Hall, of Buffalo, N. Y.

On Wednesday afternoon, July 20th, a Public Address was delivered in the First Methodist Church by Rev. Dr. HORACE BUSHNELL of Hartford, on the New Education in Science. The past and present members of the State Board of Visitors, Councillors of the School, together with the graduates and undergraduates, met at Sheffield Hall, and went together in a procession to the church. The discourse was listened to with marked attention and interest, and was subsequently printed in *Hours at Home*, for September.

## 6. GIFTS TO THE PEABODY MUSEUM OF NATURAL HISTORY.

The collections in Mineralogy, Geology and Zoology, which are soon to constitute the Peabody Museum of Natural History, have continued to grow during the year that is past. Although these collections are the property of Yale College, in its most comprehensive sense, they are of so much advantage to the higher interests of science as to require recognition in this report of the School. The usual lists of additions in zoölogy and geology will be printed elsewhere, but special attention is here invited to the following very noteworthy accessions:

1. *Zoölogical Department.*

PROF. A. E. VERRILL, CURATOR.

During the year many valuable additions have been made to the Zoölogical collections. Among the more important gifts are two large collections of the marine shells, corals, echinoderms, etc., of the Gulf of California, sent by Capt. J. Pedersen, whose death, last autumn, deprived us of a valued friend and coöperator; an excellent collection of the birds of India from Geo. A. Kittredge, Esq.; a collection of birds' eggs from the Smithsonian Institution; a skeleton of the East Indian Tapir, together with other skeletons and skulls, and numerous fresh-water mammals, birds, and reptiles, intended for the preparation of skeletons, from Professor O. C. Marsh; a number of valuable skulls and skeletons from the Rocky Mountains and California Coast, obtained by the Yale Scientific Expedition, under Professor Marsh; a very large and complete collection of the marine animals of the Bay of Fundy, collected by Professor Verrill and Mr. Oscar Harger, during an expedition to that region in the summer vacation; numerous insects, etc., from Walpole, N. H., and marine animals from Fire Island, L. I., collected by Mr. S. I. Smith during the summer vacation. Other valuable collections have also been received.

Professor Dana has also made a very important gift of books and pamphlets, mostly relating to Crustacea, together with his sea-notes and numerous drawings made while on the United States Exploring Expedition, under Capt. Wilkes. In addition to their intrinsic value, these notes and drawings will be of great interest in connection with the history of Zoölogical science.

The work of cataloguing and labelling the collections has steadily advanced during the year. Mr. S. I. Smith has determined and described many of the Crustacea, Mr. Oscar Harger has identified the American Myriapoda, Mr. Belknap has given much assistance in cataloguing the fresh-water Mollusca, Professor Verrill has completed his works on the Echinoderms and Corals of the west coast of America, which have been published in the Transactions of the Connecticut Academy, and will serve as complete catalogues of our collections in those departments. He has also determined the Ascidians of the New England Coast, and has described the new and imperfectly known species in the American Journal of Science. The exchanges have been extended as rapidly as the very limited amount of time that the curator has been able to devote to it would admit. Several collections have been sent away during the year and others are in preparation.

## 2. *Geological Department.*

PROF. O. C. MARSH, CURATOR.

The past year has largely enriched the collections of the Geological Museum of Yale College, the additions in fossil vertebrates alone exceeding the material previously obtained. Continued progress has also been made in arranging and cataloguing the specimens recently secured; and in this work Mr. Oscar Harger and Mr. Henry S. Williams, assistants in Palæontology, have done good service. Especial efforts have been made, moreover, to increase the collections in recent Osteology, more particularly for use in investigating the many remains of extinct vertebrates now in the Museum.

Among the most important acquisitions made since the last Report are the entire collections of Cretaceous and Tertiary fossils obtained by the Yale College Expedition, in charge of Professor Marsh, during their explorations last summer in the Rocky Mountain region. These collections embrace more than ten thousand specimens, including at least fifty species of extinct Mammals, Birds, Reptiles, and Fishes new to science, with many interesting and undescribed invertebrate remains.

The most noteworthy and valuable single gift to the Museum received during the past year is a large and unique series of fossil Fishes, from the sandstone of the Connecticut valley, and other localities of the same formation, with several other instructive suites of American and European fossils, together constituting the collection of the late William C. Redfield, Esq. This very important addition to the Geological Department, amounting to several thousand specimens, was generously presented by John H. Redfield, Esq., of Philadelphia, and Charles B. Redfield, Esq., of Pittsfield, Mass.

Several interesting collections of Cretaceous fossils have lately been received from the marl region of New Jersey, especially from John G. Meirs, Esq., in behalf of the Cream Ridge Marl Company; from the Pemberton Marl Company, through J. C. Gaskill, Esq.; and from the West Jersey Marl Company, through I. C. Voorhies, Esq., Superintendent. An extensive collection of *Melonites*, from the St. Louis limestone of Missouri, undoubtedly the finest series in the country, has recently been secured for the Museum, from Professor A. Litton, of St. Louis. Many other important additions made during the past year are noticed in the list of donations.



### 3. *Mineralogical Department.*

PROF. G. J. BRUSH, CURATOR.

The Mineralogical Cabinet of Yale College has been very greatly enriched by the acquisition of the famous collection of pseudomorphs made by Prof. Blum of Heidelberg. This collection is unique. It is the result of thirty-eight years of enthusiastic devotion to the specialty of pseudomorphs by the first authority in this department of Mineralogy. The specimens, numbering over 1700 (exclusive of duplicates), are the original material which furnished Prof. Blum the important facts recorded in his work, *Die Pseudomorphosen des Mineralreichs*, published in 1842, and the subsequent "Nachträge," published in 1847 and 1852. It is conceded to be the most complete collection of pseudomorphs in existence, and its addition to the Mineralogical Cabinet here is of the highest importance to students and investigators in Mineralogy and Geology.

The acquisition of this remarkable collection for the Cabinet is due to the liberality of JOSEPH SAMPSON, Esq., of New York, who on learning the character of the collection and the desirability of obtaining it, most generously gave \$3000 to purchase it. This is the largest and most important addition made to the Cabinet since the purchase of the Lederer collection in 1843.

Dr. Wolcott Gibbs of Harvard College, and George Gibbs, Esq., of New York, have generously presented the Cabinet with several hundred specimens of American minerals, in part collected by their father, the late Col. George Gibbs, the former owner of the College Cabinet. This collection contains many valuable additions for the Cabinet from old and now exhausted American localities.

### 4. *Archæology and Ethnology.*

Among the more noteworthy acquisitions since the last Report, may be mentioned a collection of about seven hundred characteristic stone implements from Southern Ohio; a choice series of three hundred North and South American antiquities, forming the collection of Dr. Joseph Leidy; a suite of one hundred and fifty rare forms of stone implements from New England, collected by R. H. Rust, Esq., of Massachusetts; and a collection of several hundred antiquities from a mound in Missouri, including about fifty specimens of Pottery, some of the finest hitherto discovered in North America. These various antiquities, about fifteen hundred in num-



ber, are the gift of Professor Marsh. Other interesting and valuable additions to the Museum have been received, and are acknowledged in the list of donations.

#### 7. THE OTHER GIFTS OF THE YEAR.

In addition to the money gifts to which allusion has been made, the School has continued to receive a large number of other donations which are highly acceptable and useful.

##### *Drawings of the Novelty Iron Works.*

Foremost in importance is the collection of Drawings from the Novelty Iron Works, to which a brief allusion was made last year, and of which a catalogue is now given in the Appendix.

The establishment from which this valuable donation was received has been for about forty years one of the most prominent in this country in the manufacture of machinery. It was originally founded by Dr. Nott, late President of Union College, and had its origin in the efforts he was making to introduce the use of anthracite coal as a fuel for the steam engine. For this purpose Dr. Nott built a small steamboat to run on the East River, which, being novel in design, and novel in regard to the fuel to be used, he named the "Novelty." A small building, standing near what is now the foot of 12th street, East River, was converted into a primitive shop for the purpose of repairing this novel steamboat, and this building received from the workmen the name of the "Novelty's Works." From this the name of the works finally became "The Novelty Iron Works."

The machinery manufactured at these works during its long and useful career comprised all the varieties which the country from time to time demanded; and included stationary engines and boilers, sugar machinery, machinery for mills of all kinds, hydraulic presses, and a great variety of other special machines and tools. The chief direction finally given to the work of the establishment was the construction of marine engines. An inspection of the catalogue will show what a large number of steamship engines of the largest class for vessels, the names of which are familiar to all, were designed and built at these works.

In this field of usefulness the success and reputation achieved was mainly due to the engineering abilities of Mr. Horatio Allen, and the successful business administration of Mr. Howard Potter. The works were closed in 1869 by the voluntary action of the stock-

holders, on account of the falling off of the steamship building business in this country, ocean steamship construction and navigation having passed almost entirely into foreign hands. When the question came up, as to what disposition should be made with the valuable drawings accumulated during this long career, it was decided, through the liberal representations of Mr. Howard Potter, that the proper place for the collection would be in an institution of learning devoted especially to the subjects to which the collection relates; and the Sheffield Scientific School became the grateful recipient.

*Illustrated Catalogues of Connecticut Manufactures.*

The Library has received a few valuable gifts. Among the most noteworthy are some of the Illustrated Catalogues of manufacturing establishments in Connecticut, which are among the most perfect specimens of typography executed in this country. One of these Catalogues exhibits by engraving and letter press the articles which are made in the line of cutlery and hardware at the Ætna Works of Messrs. Landers, Frary & Clark, in New Britain. A second Catalogue exhibits the various hinges, door knobs, escutcheons, etc., made in a peculiar and beautiful sort of bronze by the establishment of Messrs. Russell, Irwin & Co. in New Britain. A third Catalogue exhibits by engraving the artistic work of the Ornamental Wood Company in Bridgeport.

The last and in some respects the most elaborate of these works presented to our Library is the Illustrated Catalogue of door locks, knobs, and padlocks, manufactured by Messrs. Mallory, Wheeler & Co., a folio work of extraordinary typographical perfection. Like the other Catalogues, it was printed at the office of Messrs. Wm. C. Hutchins & Co. in Hartford.

These Catalogues are valuable not merely as specimens of typography, "the art preservative of all arts," but as illustrations of the perfection to which some of the manufacturing industries of the State have been carried.

*Physical Apparatus.*

By aid of the funds heretofore acknowledged, a few additions have been made to the physical apparatus during the year, in the branches of Heat, Pneumatics, Optics, Electricity and Mechanics, at an expense of between five and six hundred dollars. These include a galvanic battery, centrifugal apparatus, gas holders, mountain barometer, etc. The following articles have been presented:

An Air Target Pistol, by the manufacturer, *E. H. Hawley*, New Haven.

An Ellipsograph, by *Paul Roessler*, New Haven.

A Set of Photographs of Magnetic Spectra, by *Prof. Alfred M. Mayer*, Lehigh University.

A Calcium Light with Parabolic Reflector; and a number of Models, by *J. E. Earle, Esq.*, of New Haven.

### *Botany.*

The principal botanical collections here being private property, a notice of their annual increase, which is considerable, is scarcely appropriate to this report. It is desirable, however, to form a collection of Economic Botany. The first specimens for this collection are two palmetto trees, (*Chamærops Palmetto*), presented by Professor O. C. Marsh.

Mr. J. Sumner Smith (Y. C. 1853), has given to the School his herbarium, containing about 600 specimens of plants, mostly from New Haven County. This is designed to serve as the beginning of an Herbarium of the State Flora, to be kept in the School building for the use of the students, as well as for consultation by any one interested in the plants found growing in Connecticut.

### *Maps and Charts.*

From Maj. Gen. A. A. Humphreys, Chief of Engineers in the United States Army, the School has received a collection of Maps exhibiting the battle fields in the recent war, lying east of the Alleghany Mountains, and also the very important series of Maps of the survey of the Northern lakes, both embodying the work of the Engineers of the Army.

From Hon. E. I. Sanford, of New Haven, the School has received a copy of the Map of the South Eastern Shore of Connecticut, published from the surveys of the New York and New Haven Railroad.

From Mr. L. S. Punderson, of New Haven, we have received a copy of the Map of New Haven County, published in 1852, from the surveys of R. Whiteford.

Mr. Frank E. Hotchkiss, of New Haven, has also given to us the Maps, on rollers, of the cities of Bridgeport and New London, published in 1850, and a Map of the United States, published in 1840, and Sidney's Map of twelve miles around New York, 1840.

### *Metallurgy.*

The metallurgical collection has been increased by the following gifts from:

*T. Macfarland*, Actondale, Canada. A suite of purple copper ores from Acton Mine.  
*Clarence King*, (S. S. S. 1862), Wheeler Amalgamation Pan for the treatment of silver ores.



*Meriden Britannia Works.* Specimens of Britannia metal.

*Holmes, Booth & Haydens,* Waterbury, Ct. Specimens of Brass and German Silver.

*Scovill Manufacturing Co.,* Waterbury, Ct. Specimens of Alloys.

*Jas. M. Townsend, Esq.,* New Haven. Suite of Gold and Copper ores, from Wilson Mine, N. C.

*T. S. Woolsey,* (Y. C. 1872.) A specimen of Iron ore from Litchfield Co., Conn.

*Yale Lock Co.,* Stamford, Ct. Specimens of bronze used for bank-locks.

*C. C. Trowbridge, A. H. Sibley and Thos. Macfarland.* A suite of Silver ores from Silver Islet, Lake Superior.

*Geo. C. Munson.* Specimens of Gold and Silver ores from Colorado.

### *Aid for Needy Students.*

A very welcome gift has been received from Rev. Leonard W. Bacon of Baltimore, in the sum of one hundred dollars, to be loaned to a student of merit who requires pecuniary help; and when repaid by such a borrower to be again loaned to some other such student. This gift it is proposed to make the nucleus of a "Loaning Fund for Students of Merit," which for several years the Governing Board have been desirous of instituting. Some of the most promising young men in the School find it very difficult to meet their current expenses. Such persons almost always prefer a loan, to be repaid from their first earnings, rather than a positive gift. It has been thought that many persons in New Haven and elsewhere would be glad to contribute sums of one hundred dollars, more or less, in aid of this class of students, if the right way were pointed out. Gifts of any amount for this purpose are earnestly solicited.

### *Gift from the Class of 1869.*

The class which graduated in 1869, through one of their number, Mr. F. H. Willits, Ph.B., of Glen Cove, L. I., have generously presented to the Governing Board the sum of \$210, to be expended in any way the Governing Board may select. It is proposed to expend this sum in the purchase of a piece of apparatus or in some important works required in the library, so as to form a constant memorial of this unsolicited liberality.

## 8. NUMBER OF STUDENTS.

The number of students enrolled on the catalogue during the current year 1870-71, has been 125, of whom 23 were post graduates, 94 were undergraduates, and 8 were special students. The state scholarships have all been taken up.

The names of the students for the year are given on the following pages, as a conclusion to this Report.



## GRADUATE STUDENTS.

James Whitin Abbott, B.A.	<i>New Haven.</i>
Charles Augustus Brinley, PH.B.	<i>Hartford.</i>
Thomas Elwood Calvert, PH.B.	<i>Newtown, Pa.</i>
Edward Salisbury Dana, B.A.	<i>New Haven.</i>
Rev. James A. Deane, M.A., Wesl.	<i>Westville.</i>
Quincy Lamartine Dowd, B.A. } Oberlin Coll.	<i>Seville, O.</i>
Augustus Jay DuBois, C.E.	<i>New Haven.</i>
Oscar Harger, B.A.	<i>Oxford.</i>
Bernard James Harrington, B.A. } McGill University, Montreal.	<i>Montreal, Canada.</i>
Charles Sheldon Hastings, PH.B.	<i>Hartford.</i>
Albert Banks Hill, C.E.	<i>Redding.</i>
William Henry Hotchkiss, B.A.	<i>New Haven.</i>
John Beach Isham, B.A.	<i>New Haven.</i>
Robert Allen Hume, B.A.	<i>New Haven.</i>
William Dennis Marks, PH.B.	<i>St. Louis, Mo.</i>
Arthur Woods Rice, PH.B.	<i>Meriden.</i>
Horatio Seymour, B.A.	<i>Utica, N. Y.</i>
Sidney Irving Smith, PH.B.	<i>New Haven.</i>
James Harrison Thomson, B.A. } Hanover Coll., Prof. Chem. and Nat. Sci. in Hanover Coll.	<i>Hanover, Ind.</i>
James Edward Todd, M.A. } Oberlin Coll., Prof. Chem. and Nat. Sci. in Tabor Coll.	<i>Tabor, Iowa.</i>
Eli Whitney, B.A.	<i>New Haven.</i>
Henry Shaler Williams, PH.B.	<i>New Haven.</i>
Richard William Woodward, B.A.	<i>Franklin.</i>

GRADUATE STUDENTS, 23.

## UNDERGRADUATE STUDENTS.

## SENIORS.

Horace Andrews,	<i>Tarrytown, N. Y.</i>
Henry Wilcox Ayres,	<i>Hartford.</i>
Edwin Faxon Bacon,	<i>Norwalk.</i>
Luther White Burt,	<i>Hartford.</i>
George Benjamin Chittenden,	<i>East River.</i>
Justus Vinton Dart,	<i>New London.</i>
Russell Wheeler Davenport,	<i>New York City.</i>
William Cecil Durand,	<i>Milford.</i>
Charles Hascall Dwinelle,	<i>Oakland, Cal.</i>
Charles Addison Ferry,	<i>New Haven.</i>
Charles Henry Green,	<i>Cincinnati, O.</i>
Charles Woodford Griswold,	<i>New Britain.</i>
Philip Owen Hawkins,	<i>Wakefield, R. I.</i>

John Nichols Judson,  
 George Macculloch Keasby,  
 Joseph Frederick Klein,  
 George Granville Lobdell,  
 Thomas William Mather,  
 Mansfield Merriman,  
 Alfred Louis Moore,  
 Daniel Hobart Pierpont,  
 Ferdinand Eugene Powell,  
 John Franklin Quigley,  
 Frederick Lockwood Sanford,  
 Henry Bradford Sargent,  
 Edward Clinton Terry,  
 Harry Degen Ziegler,

*New Haven.*  
*Newark, N. J.*  
*New Haven.*  
*Wilmington, Del.*  
*New Haven.*  
*Plantsville.*  
*Fond du Lac, Wisc.*  
*North Haven.*  
*New Haven.*  
*Wilmington, Del.*  
*New Haven.*  
*New Haven.*  
*Terryville.*  
*Philadelphia, Pa.*

SENIORS, 27.

## JUNIORS.

Jacob Jackson Abbott,  
 James Peter Bogart,  
 Burwell Henry Boykin,  
 William Bristol,  
 Harry Hill Buck,  
 Joseph Dart,  
 Frederick Stoeve Dickinson,  
 William Darlington Evans,  
 Wallace Leland Folsom,  
 William Saunders Green,  
 Daniel Webster Hering,  
 Charles Louis Johnson,  
 Samuel Trevor Knapp,  
 Harrison Wheeler Lindsley,  
 John Chester Lyman,  
 Frank Oscar Maxson,  
 Robert Douglass Millholand Maxwell,  
 George Noyes Miller,  
 Charles Theodore Morse,  
 Thomas Perkins Nevins,  
 Theophil Mitchell Pruden,  
 Willard Berthrong Roberts,  
 Thomas Hubbard Russell,  
 William Edward Smith,  
 Frank Hale Stickney,  
 Charles Austin Tibbals,  
 Edward Andrews Tuttle,  
 Daniel Wardwell Wardwell,  
 Frederick Floyd Weld,  
 William Brenton Welling,

*Yarmouth, Me.*  
*New Haven.*  
*Camden, S. C.*  
*New Haven.*  
*Orland, Me.*  
*Buffalo, N. Y.*  
*West Chester, Pa.*  
*West Chester, Pa.*  
*Northford.*  
*Cincinnati, O.*  
*Johnsville, Md.*  
*Ansonia.*  
*New York City.*  
*New Haven.*  
*Northampton, Mass.*  
*Norwich.*  
*Wilmington, Del.*  
*Lenox, N. Y.*  
*New Haven.*  
*Waterford.*  
*New Haven.*  
*Hartford.*  
*New Haven.*  
*Goshen.*  
*Rockville.*  
*Brooklyn, N. Y.*  
*West Haven.*  
*Rome, N. Y.*  
*Guilford.*  
*New York City.*

JUNIORS, 30.

## FRESHMEN.

Edgar H. S. Bailey,  
 Alvah Weed Brown,  
 Moses Bulkley,  
 Charles Albert Burt,  
 Fillmore Cogswell,  
 William Righter Comings,  
 William Allen Cowles,  
 Charles Adams Cragin,  
 Robert John Currey,  
 Annis Merrill Doolittle,  
 Harry Taylor Gause,  
 James Elliot Gregory,  
 Edward Julius Hall,  
 Henry Sheaff Hoyt,  
 Robert Jaffray,  
 William H. Jenks,  
 Charles Hittel Killinger,  
 Archibald McCall,  
 Charles Henry Matthews,  
 George Christopher Moore,  
 Charles Miller Morse,  
 James Augustus Nelson,  
 Charles Thomblin Noonan,  
 William Josiah Parks,  
 Walter Brewster Platt,  
 Benjamin Pomeroy,  
 Samuel Rockwell,  
 Amory Edwards Rowland,  
 Edgar Camp Savage,  
 William Lucien Scaife,  
 Alfred Lewis Sellers,  
 Charles Thompson Smith,  
 Edward Henry Smith,  
 Lewis Rodney Taylor,  
 Aretas Whittelsey Thomas,  
 George Judson Walker,  
 Henry Goodrich Wolcott,

*Middlefield.*  
*Englewood, N. J.*  
*Brooklyn, N. Y.*  
*Wallingford.*  
*Washington.*  
*New Britain.*  
*New Haven.*  
*Wallingford.*  
*San Francisco, Cal.*  
*Wallingford.*  
*Wilmington, Del.*  
*New York City.*  
*Buffalo, N. Y.*  
*Staatsburgh, N. Y.*  
*New York City.*  
*Brookville, Pa.*  
*Lebanon, Pa.*  
*West Chester, Pa.*  
*Waterbury.*  
*Birmingham.*  
*Buffalo, N. Y.*  
*New Haven.*  
*Milwaukie, Wisc.*  
*Brooklyn, N. Y.*  
*Waterbury.*  
*Southport.*  
*Bridgehampton, N. Y.*  
*Brooklyn, N. Y.*  
*Meriden.*  
*Pittsburgh, Pa.*  
*West Chester, Pa.*  
*New York City.*  
*Plainville.*  
*Hamilton, Va.*  
*Bethlehem.*  
*Buffalo, N. Y.*  
*Fishkill, N. Y.*

FRESHMEN, 37.

## SPECIAL STUDENTS NOT CANDIDATES FOR A DEGREE.

Joseph Sampson Adam,  
 William G. Budington,  
 E. B. Cannon,  
 Henry Fowler English,  
 \*B. Wistar Fellowes,  
 George Chestley McClean,  
 Wilbur Fisk Myers,  
 Shippen Wallace,

*Canaan.*  
*Brooklyn, N. Y.*  
*South Carolina.*  
*New Haven.*  
*New Haven.*  
*Springfield, Mass.*  
*Franklin, Pa.*  
*Philadelphia, Pa.*

SPECIAL STUDENTS, 8.

\* Deceased,

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PROGRAMME  
OF THE  
SHEFFIELD SCIENTIFIC SCHOOL  
OF  
YALE COLLEGE,

For the College Year Beginning Sept. 14th, 1870.

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# SHEFFIELD SCIENTIFIC SCHOOL.

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PROGRAMME, MAY, 1871.

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## I.

### THE THREE SORTS OF STUDENTS.

This Institution, which is partly coördinate with a classical college and partly with professional schools, receives three classes of students :

1. Those who wish to pursue a three years course of training,\* in accordance with a prescribed curriculum, largely based upon mathematical, physical, and natural science, with instruction in German, French and English ; (see page 39).
2. Those who have already graduated in some college or school of science and desire to pursue advanced courses of scientific study ; (see page 38).
3. Those who desire under peculiar circumstances to attend for a short time instructions in special branches ; (see page 46).

These three classes are known as UNDER-GRADUATES, GRADUATES, and SPECIAL STUDENTS.

## II.

### RELATIONS TO YALE COLLEGE.

The relations of the Scientific Department to the Classical Department of Yale College may be thus stated ;—the instructors, terms of admission, courses of study, and methods of instruction in the two departments are different ; but both institutions are harmoniously organized under one Board of Trustees, and consequently the students have in common certain University privileges, and are alike entitled to become graduates of Yale College.

It is this union and this individuality which give the Sheffield School at New Haven the steadiness of a firm and well-tried institution, with the freedom of a new foundation. The combination

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\* Soon to be made a four years' course.

has been in many respects highly advantageous to the new department, and is probably not without some influence for good upon the old and well-known classical department. The establishment of a college of science has relieved the academic or classical college from all pressure tending to the establishment of "partial courses" of study, and has supplemented its means of instruction by new professorships and new scientific collections; while it has rendered a still greater service by giving to graduates of the classical department, opportunities for special and systematic professional training, distinct from those afforded in the schools of law, medicine, and theology.

On the other hand, the Scientific School has had the benefit of the name and repute of Yale College throughout the land. The long-established libraries and cabinets have been opened to the scientific students, who have also attended many courses of the academic lectures. More than all this, many of the officers of the classical college, by their influence, encouragement, and counsel, have given and are constantly giving to the new college assistance too valuable and enduring to be ever forgotten.

Under these circumstances, it is pleasant to add that during all the wide-spread controversies between science and letters as means of instruction, the utmost harmony has prevailed among the friends of both in New Haven.

### III.

#### THE TEACHERS, AND THEIR TOPICS.

There are eleven permanent professors who constitute with President Woolsey the Governing Board of the Scientific School, and during the coming year there will be several other instructors giving the whole or a part of their time to the work of teaching. The special courses of study will be indicated beyond. In this connection it is enough to say that instruction is given in the various branches of mathematical, physical, and natural science, with reference alike to the promotion of high intellectual culture, the acquisition of useful knowledge, and the preparation for various modern professions. While scientific and technical studies are thus made predominant, all candidates for the Bachelor's degree are also required to pay attention to linguistic studies, some knowledge of Latin being required for admission, and the study of German, French, and English being continued through

the course. In other words, the school aims to make good scholars by modern methods for modern vocations.

The chief Instructors and their specialties may be thus grouped :

I. ENGINEERING, ETC.

Mathematics and Civil Engineering,	-	-	-	W. A. NORTON.
Mechanical or Dynamical Engineering,	-	-	-	W. P. TROWBRIDGE.
Astronomy, Theoretical and Practical,	-	-	-	C. S. LYMAN.
Analytical and Descriptive Geometry,	-	-	-	D. H. WELLS.
Land Surveying,	-	-	-	A. B. HILL.
Drawing, Mathematical and Free-hand,	-	-	-	L. BAIL.

II. CHEMISTRY, ETC.

Theoretical and Analytical Chemistry,	-	-	-	S. W. JOHNSON.
Metallurgy and Assaying,	-	-	-	{ G. J. BRUSH. O. D. ALLEN.
Elementary Chemistry,	-	-	-	W. G. MIXTER.
Agricultural Chemistry,	-	-	-	S. W. JOHNSON.
Agriculture,	-	-	-	W. H. BREWER.
Laboratory Practice,	-	-	-	{ W. G. MIXTER. O. D. ALLEN.
Physics,	-	-	-	C. S. LYMAN.

III. NATURAL HISTORY, ETC.

Mineralogy,	-	-	-	-	G. J. BRUSH.
Botany,	-	-	-	-	D. C. EATON.
Zoology,	-	-	-	-	{ A. E. VERRILL. S. I. SMITH.
Palæontology,	-	-	-	-	O. C. MARSH.
Geology,	-	-	-	-	A. E. VERRILL.
Physical Geography,	-	-	-	-	D. C. GILMAN.

IV. LANGUAGE, ETC.

German,	-	-	-	-	W. D. WHITNEY.
French,	-	-	-	-	E. C. DELFOSSE.
English,	-	-	-	-	T. R. LOUNSBURY.
Elocution,	-	-	-	-	M. BAILEY.
Linguistics,	-	-	-	-	W. D. WHITNEY.
Modern History and Political Economy,	-	-	-	-	D. C. GILMAN.

IV.

MODERN PROFESSIONS FOR WHICH INSTRUCTION IS  
HERE PROVIDED.

It is clear from what has been said that there are three marked subdivisions of the technical instruction here provided, namely :  
1. MATHEMATICS AND ENGINEERING ; 2. CHEMISTRY AND PHYSICS ;  
3. NATURAL HISTORY ;—and that there is also provision for the study of modern languages, geography, history, and political



economy, to which the students are required to give more or less attention. In each of the groups above mentioned there is great freedom of choice respecting the general direction which a student may take; but when the decision is made there is a definite and prescribed curriculum to which he is restricted. Students who have already pursued a liberal course of education receive advanced special instruction in science corresponding with their acquirements; while undergraduates pursue more definitely prescribed courses. In the combinations of the different classes, students are received who desire to qualify themselves for such professions and occupations as the following :

1. MEN OF SCIENCE,—either as Professors, Teachers, Explorers, Investigators, Amateurs, etc.
2. Chemists,—with reference to agriculture, manufactures, pharmacy and many commercial pursuits,
3. Metallurgists and Assayers.
4. Civil Engineers,—with reference to the construction of roads and bridges, aqueducts, reservoirs, drainage systems, and public works in general.
5. Mechanical Engineers,—with reference to the superintendence of manufactories, the invention and construction of machinery, the applications of steam, etc.
6. Mining Engineers,—with reference to the development of mineral wealth, the superintendence of mines, etc.
7. Agriculturists,—acquainted with the constitution of the soil, the laws of animal and vegetable life, the experience of other nations, etc.
8. Naturalists,—in the direction of zoölogy, botany, mineralogy, or geology.
9. Physicians and sanitary advisers,—not as pursuing here medical and surgical studies (which must be afterwards taken up in the medical schools), but in preparation for the latter by studies in physics, chemistry, botany, comparative anatomy, etc.
10. Besides all these specialists, students are received who desire by a course of training, chiefly mathematical and scientific, but likewise including linguistic and historical studies, to prepare themselves for higher studies in science, or for business, or for other professions not specified above. This course has been here selected by young men designing to become clergymen, lawyers, editors, teachers, etc.

By this enumeration it is not intended to imply that scholars who have finished a three years' course, much less that those who have been here a shorter time, are thus as a matter of course prepared to assume positions of great responsibility; but only that

the foundation may here be laid, in the study of principles, for various positions of usefulness and honor.

## V.

### INSTRUCTION FOR GRADUATE STUDENTS.

The attention of young men who have already pursued a course of liberal training in a college or school of science is invited to the opportunities here afforded for the pursuit of higher scientific studies. The Degree of Doctor of Philosophy will be bestowed by the corporation of Yale College on young men who have already taken a Bachelor's degree, and who here pursue for two or three years advanced special studies, passing satisfactory examinations, and submitting a graduation Thesis as evidence of their attainments.

During the past year, the number of post-graduate students here enrolled was twenty-eight, and the specialties to which they were devoted were very different. Great freedom in the choice of work is permitted to such students; and all the resources of the institution in teachers, apparatus, laboratories, collections, etc., are at the service of those who need them. The positions of responsibility which are open to superior persons well trained in advanced scientific studies, have never been so numerous or so inviting as they are at present.

Persons desirous of availing themselves of opportunities to pursue higher studies are invited to state their special requirements or wishes to any of the instructors, and thus to become acquainted with the facilities which the institution affords.

As examples of what may be done it may be mentioned that in Mathematics, Professors Norton, Trowbridge and Lyman, with the coöperation of Prof. H. A. Newton, will direct the studies of those who wish to avail themselves of the class instructions in the Calculus, in Analytical and Descriptive Geometry, Mathematical Drawing, Practical Astronomy, etc. The Hillhouse Mathematical Library, open for consultation daily, and the astronomical instruments belonging to the school may be freely used by advanced students. The higher course in Engineering leads to the degree of Civil Engineer.

The Chemical Laboratory is fitted for the instruction of those who wish to become proficient in practical analysis, either in preparation for professorships, technical pursuits, the medical profession, or other purposes.

Instruction in Natural History may be received in the Zoological Laboratory, where the collection, description and classification of specimens are continually in progress; or by private arrangement in the herbarium of Prof. Eaton. The public and private collections of Minerals, Ores, Fossils, etc., afford special facilities for the study of mineralogy and geology.

## VI.

### INSTRUCTION FOR UNDERGRADUATES.

The courses of study for undergraduates occupy three years; it is hoped that they will be soon extended to four years. The requirements for admission and the first year's work are the same for all this class of students; during the last two years the courses are to some extent coincident, but are chiefly special and technical.

TERMS OF ADMISSION.—For admission the student must pass a thorough examination in Davies's Bourdon's Algebra as far as the General Theory of Equations, or in its equivalent; in Geometry, in the nine Books of Davies's Legendre, or their equivalent; and in Plane Trigonometry, Analytical Trigonometry inclusive; and also in Arithmetic, including "the Metrical System," Geography, United States History and English Grammar, including Spelling. An acquaintance with the Latin Language is also required, sufficient to read and construe some Classical author, and Allen's Latin Grammar is commended as exhibiting the amount of grammatical study deemed important. Practice in Drawing, if it can be obtained before entrance, will be of great advantage to the scholar.

STUDIES OF FRESHMAN YEAR.—In the *Mathematics*, Analytical and Descriptive Geometry, Spherical Trigonometry, and Surveying (with practical field work); in *Chemistry*, recitations and laboratory practice; in *Physics*, recitations, with experimental illustrations of the subjects taken up; in *Language*, the commencement of German, and lessons in respect to the use of English with practice in writing and in elocution; in *Botany*, recitations, excursions and lectures; in *Drawing*, Binn's First Course of Orthographic Projection; perspective and free-hand drawing.

STUDIES OF SENIOR AND JUNIOR YEARS.—At the close of the Freshman year, the students distribute themselves into various sections with reference to special lines of work; but IN ALL THESE SECTIONS the study of German is continued; the study of French is pursued; and practice in writing English is required. Drawing



also occupies a part of the time. At the close of three years, every candidate for a Bachelor's degree presents a Thesis as evidence of his powers of investigation and his capacity as a writer.

In each section, the students attend to some of the studies appropriate to other sections; thus Geology is taught to all the scholars; Zoölogy to the students in Chemistry as well as to those in Natural History and in the select course; and so on.

The Special courses most distinctly marked out are the following:

- (a) In Chemistry and Metallurgy;
- (b) In Civil Engineering;
- (c) In Mechanical or Dynamical Engineering;
- (d) In Agricultural;
- (e) In Natural History;
- (f) In studies preparatory to Medical Studies;
- (g) In studies preparatory to Mining;
- (h) In select studies preparatory to other higher pursuits, to business, etc.

#### (a.) IN CHEMISTRY AND METALLURGY.

The Sheffield Laboratory is fitted up in a complete and convenient manner, is provided with all the requisite apparatus and instruments of research, possesses a considerable collection of chemical preparations, and has a consulting library of the best treatises on Chemistry and the Chemical arts. It affords facilities for instruction in the various branches of theoretical and practical Chemistry.

The Laboratory is open for chemical practice seven hours daily, for five days of the weeks, but is closed on Saturday. The student works through a course of qualitative and quantitative analysis, which is varied according to his capacity and the object he has in view. Each pupil proceeds by himself independently of the others, under the constant guidance of the Instructors.

The regular students in Chemistry are prepared for chemical work by their practical exercises in the Laboratory during Freshman year. In the Junior and Senior years they are required to occupy four to six hours in the Laboratory each working day. Special Students who have not had adequate instruction in inorganic chemistry are required to join the Freshman class in Eliot and Storer's Manual.

Junior students have recitations in Analytical Chemistry and Lectures on Theoretical and Organic Chemistry.

Senior students have recitations and lectures on Agricultural Chemistry and Metallurgy.

Mineralogy is taught in the Junior year by lectures, which are



fully illustrated with hand specimens and models, and by weekly exercises throughout the Senior year in the identification of minerals from physical and chemical characters.

Instruction is also given in Metallurgy, and especial attention is devoted to assaying and the investigation of ores and furnace products. The student in Agriculture has opportunity to acquaint himself with the modes of research employed in agricultural chemistry. The applications of the science to other branches of industry are taught as occasion requires.

To advanced students, whether belonging to the regular classes or not, who desire to give attention to particular branches of chemistry, or to pursue original investigations, every facility is accorded.

The private libraries of the professors, containing the chemical journals and the recent foreign literature of chemistry and mineralogy, the large collections of ores, furnace products, &c., belonging to the School, and the extensive private cabinet of the Professor of Mineralogy, are freely used as aids in instruction.

#### (b.) IN CIVIL ENGINEERING.

The special course of Civil Engineering comprises the following departments of study :

1. *The Higher Mathematics*, consisting of Spherical Trigonometry, higher Analytical Geometry, Differential and Integral Calculus, Descriptive Geometry and coördinate branches of study, &c.
2. *Applied Mathematics*, which includes all the field operations and plotting comprised in the various branches of Practical Surveying.
3. *A Course of Drawing*, comprising Binn's Course of Orthographic Projection, with application to mechanical and engineering drawing; shading and tinting; Linear Perspective; Free-Hand Drawing; Isometrical, Topographical, Architectural and Structural Drawing.
4. *Theoretical Mechanics*; and *Mechanics applied to Engineering* in the construction and operation of machines, the utilization of water power, the employment of prime movers, including hydraulic motors, and the Steam Engine, &c.
5. *Field Engineering*, which embraces the laying out of curves, and all the field operations necessary in locating a line of road, establishing the grade, and determining the amount of excavation and embankment, &c.

6. *Civil Engineering*, proper; or the Science of Construction, in its various departments,—including, among many other topics, the strength of materials, the establishment of foundations, the construction and stability of walls and arches, the theory and detail of the construction of bridges, roof trusses, &c., in wood and iron, and the graphics of stone cutting.

Students who pursue a higher course in Engineering, for one year after graduating as Bachelors, may receive the degree of Civil Engineer.

#### (c.) IN DYNAMICAL ENGINEERING.

This course comprehends in its various branches of study and preparation, all that have an immediate bearing on Industrial pursuits, requiring the use of

1. *Instrumental Drawing*. Beginning with the elements of drawing, the students receive continuous instruction in all the conventional modes and practices of representing objects, machines, or structures, from the study of the objects; by plans, elevations, sections, shading and coloring, while at the same time, and by graphical representation, they learn the detailed construction of all classes of machinery, the application of mechanical movements, and the modes of transmitting motion and power. To these ends a large collection of standard drawings, models, and machines, has been obtained and arranged for ready reference.
2. *The Higher Mathematics*. Spherical Trigonometry, Analytical Geometry of three dimensions, Differential and Integral Calculus—and Descriptive Geometry.
3. *Applied Mathematics*. Analytical Mechanics. The principles of Thermodynamics, or the application of mathematics to the investigation of the laws of heat, the principles of Cinematics or the comparison of motions; the theory of mechanism.
4. *Applied Mechanics and Thermodynamics*. The application of mechanics Cinematics and Thermodynamics to the construction of boilers, or steam generators, the construction of steam or heat Engines, the construction of water wheels, shafting, gearing, and the construction, and use of tools and machines, for performing all kinds of useful work, the construction of iron bridges and structures of iron, the properties of materials as regards resistances to strains, or stresses, elasticity, durability, chemical reactions. friction, etc.

5. *Dynamic Engineering.* The application of the principles of mathematics, mechanics, cinematics, themodynamics, mechanism, properties of materials to Industrial operation, steamships, railway motive power, manufactures, mills, forges, fabrication of materials, heating and ventilation, the utilization of water power, draining, and irrigation, wind mills, &c.
6. For students desiring to take a degree of Dynamic Engineer, two additional years will be required, during which the application of the foregoing studies will be continued in connection with the examination of existing works of industry in the various branches, and the exercises will be extended to the planning of such works, and the original designing of the various kinds of machinery applicable to them.

#### (d.) IN AGRICULTURE.

Students in this department, in addition to those general studies needed for mental discipline or general knowledge and culture, receive instruction in Agricultural and Analytical Chemistry, Vegetable Physiology and Botany, Zoölogy, Entomology, Geology, the culture of our Staple Crops, the Principles of Stock Breeding and Rearing, and Rural Economy. These instructions are given partly by lectures and partly by recitations.

In the coming year, the lectures on stock breeding, rural economy and the cultivation of crops, will be given during the fall term only.

#### (e.) IN NATURAL HISTORY.

Either Geology, Mineralogy, Zoölogy or Botany may be made the principal study, some attention in each case being directed to the other three branches of Natural History.

1. In Botany the extended course begins with Structural and Physiological Botany, taught by text-book, lectures, and practical work with the microscope. Excursions and practice in identification of species and proper preservation of specimens follow. Familiarity with standard botanical literature is encouraged, and lastly, students are taught to record their observations in scientific language, and to contribute, if possible, something to botanical science.

2. In Geology the instruction consists of recitations in Dana's Manual, illustrated by specimens of minerals, rocks, and fossils. Excursions are made to interesting localities to illustrate certain principles of the science which can be best studied in the field.



Special students in geology pursue the practical study of fossils in the zoölogical laboratory, and of minerals and rocks in the chemical laboratory.

3. The instruction in Zoölogy includes courses of lectures on systematic zoölogy, comparative anatomy, and the geographical distribution of animals, illustrated by specimens and a large number of diagrams; excursions for the purpose of studying the habits of living animals and collecting specimens; and practical instruction in the zoölogical laboratory in comparative anatomy, embryology, and the identification, description, and classification of animals, together with their preservation and arrangement. The purpose is, in every case, to induce habits of close observation and accurate generalization, and finally, to lead the student to make original investigations upon the objects of his study.

4. In Mineralogy a course of lectures on elementary crystallography, and the physical properties of minerals, their chemical composition, classification, and the detailed description of mineral species, illustrated by constant reference to the mineral cabinets. Also a course of practical exercises in blowpipe and determinative mineralogy.

#### (f.) IN PREPARATION FOR MEDICAL STUDIES.

During one year the work of this course will be chiefly under the direction of the instructors in Chemistry; during the second year under that of the instructors in Zoölogy and Botany. In Chemistry especial attention will be given to the examination of urine and the testing of drugs and poisons; in Zoölogy to comparative anatomy, reproduction, embryology, the laws of hereditary descent and human parasites; and in Botany to a general knowledge of structural and physiological Botany, and to medicinal, food-producing and poisonous plants.

#### (g.) IN STUDIES PREPARATORY TO MINING.

Young men desiring to become Mining Engineers, can pursue the regular course in civil or mechanical engineering, and at its close can spend a fourth year in the study of metallurgy, mineralogy, etc. Should there be a sufficient number of students desiring it, a course of lectures on the subject of Mining will also be provided.



(h.) IN SELECT STUDIES PREPARATORY TO OTHER HIGHER PURSUITS, TO BUSINESS, ETC.

In accordance with a demand for systematic instruction in scientific studies, without reference to technical pursuits, and with a just regard to intellectual culture, a course is arranged as a basis for higher scientific pursuits, for teachers, business men, those designing to engage in editorial work, and others. This course in addition to the instructions in German, French and English, common to all departments of the school, includes instruction from Prof. Whitney in the general principles of Language, and from Mr. Lounsbury in the critical study of the English language, in its structure, history and literature. Constant practice in writing is also required. Students desiring to pursue the study of Latin, or of other languages, can easily make arrangements for doing so, if their time permits. The course also provides systematic instruction in the Physical Geography of the globe; in the special physical and historical geography of Europe and the United States; in the outlines of Modern History, and in Political Economy. The students in this course receive from the various professors instruction in Agricultural Chemistry, Botany, Zoölogy, Geology and Mineralogy. They attend the lectures on Agriculture, Rural Economy, Stock Breeding, etc., and those on General and Theoretical Chemistry. Their mathematical studies are continued in Astronomy. They are expected to keep up the practice of Drawing, especially of Free-hand drawing. So far as it does not interfere with appointments in the school, students in this course are permitted to attend the lectures of President Woolsey, Dr. Sanford, and other lecturers in the academical department.

## VII.

### INSTRUCTION FOR SPECIAL STUDENTS.

For the benefit of those who desire to pursue some particular studies, without reference to a college degree, most of the various instructors are willing to receive special students for a longer or shorter time. Only persons of mature minds are received.

For example, in Agriculture the instruction is so arranged that by attendance during the ensuing autumn term, the scholar may hear the various lectures, and receive as much technical instruction in this one branch, as by remaining through the winter.

In the chemical laboratory, students properly qualified are received for short periods of work.

In the various departments of Natural History special lessons will also be given.

Instruction may also be received in Practical Astronomy and the use of instruments.

It should be distinctly understood that these opportunities are not offered to persons who are incompetent to go on with regular courses, but are designed to aid those who have been educated elsewhere to increase their proficiency in special branches.

### VIII.

#### BUILDING AND APPARATUS.

Sheffield Hall, bearing the name of the donor, Mr. Joseph E. Sheffield, of New Haven, is a large and well arranged building containing recitation and lecture rooms for all the classes, a hall for public assemblies and lectures, laboratories for chemical and metallurgical investigations, a photographic room, an astronomical observatory, museums, a library and reading room, besides studies for some of the professors, where their private technical libraries are kept.

The following is a summary statement of the collections belonging to the School:

1. Laboratories and Apparatus in Chemistry, Metallurgy, Mechanics, Photography and Zoölogy.
2. Metallurgical Museum of Ores, Furnace Products, etc.
3. Agricultural Museum of Soils, Fertilizers, useful and injurious Insects, etc.
4. Collections in Zoölogy.
5. Astronomical Observatory. with an equatorial telescope by Clark and Son of Cambridge, a meridian circle, etc.
6. Library and reading room, containing the "Hillhouse Mathematical Library," books of reference and a selection of German, French, English, and American scientific journals.
7. A collection of Physical Apparatus, constituting "the Collier Cabinet,"—recently bought by Prof. Lyman.
8. Models in Architecture, Civil Engineering, and Mechanics, and diagrams adapted to public lectures.
9. Maps and Charts, topographical, hydrographical, geological, etc.

The mineralogical cabinet of Professor Brush, the herbarium of Prof. Brewer, the collection of native birds of Professor Whitney, and the astronomical instruments of Professor Lyman, are all deposited in the building. Prof. Eaton's herbarium, near at hand, is freely accessible.

Students in this department are also admitted to the College and Society libraries, the College Reading Room, the Cabinet of Minerals and Fossils, the School of the Fine Arts, and the Gymnasium for physical exercise.

**IX.****L**ECTURES.

The instructions of this institution are given chiefly in small class rooms, by recitations or familiar lectures, illustrated by all the apparatus at the command of the various teachers. A public course of lectures is given every winter on topics of popular interest. On Sunday evenings during a portion of the year, lectures are given by resident clergymen of different denominations, and by members of the Theological and other college faculties. A course of lectures on the Preservation of Health, by Dr. Francis Bacon, Professor in the Medical Department, may be expected on Saturday mornings at the beginning of the autumn term.

**X.****T**UITION **C**HARGES.

The tuition charge is \$150 per year. Besides this there is a charge of \$5 annually for the use of the academical reading room and gymnasium. Freshmen pay \$5 for chemicals; and the special students in the chemical laboratory are likewise charged \$25 per term, for the materials they use—besides breakage. The Graduation fee is \$10.

Vacations correspond with those of the academical department.

**XI.****C**HURCH **S**ITTINGS.

Free sittings for students in this department of Yale College are provided as follows:

In the Center Church (Cong.), Rev. G. L. WALKER, D.D.: Pews No. 36 and 42, in the North Gallery.

In Trinity Church (Episc.), Rev. E. HARWOOD, D.D.: Pews No. 175 and 177, in the North Gallery.

In the First Methodist Church, Rev. G. W. WOODRUFF, D.D.: Pew No. 78, at the head of the West Aisle (below).

Any of the students may occupy a sitting in these slips. Those who prefer to pay for a sitting for a year, more or less, in the churches above mentioned, or in any other church of any denomination, will be aided on application to the Treasurer or Secretary of the School.

Sittings in the Gallery of the College Chapel are free as heretofore to the students of this department.





*APPENDIX TO THE SIXTH ANNUAL REPORT.*

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CATALOGUE OF DRAWINGS  
EXHIBITING THE  
ENGINES, MACHINERY, ETC.  
MANUFACTURED BY  
THE NOVELTY IRON WORKS, NEW YORK.

PRESENTED BY THE NOVELTY IRON WORKS TO THE SHEFFIELD  
SCIENTIFIC SCHOOL, SEPTEMBER, 1870.

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# CATALOGUE.

## FIRST SERIES.

1. **Jib Cranes and Crabs for Docks.**  
Hoisting Crabs for A. O. 4 and 5'. Do. for "Atlantic." Do. for "Baltic." Do. "Yznaga." Crane on Dock Novelty Iron Works. "E. S." Crane. Independent Crane.
2. **Cone Valve Oscillators.** Model Engine. Horizontal Engine.
3. **Miscellaneous Drawings of Beam Engines built years ago.**  
Lighthall's Half Beam Engine on U. S. S. "Jefferson." Cylinder for Steamer "Peru." Bed Plate for Steamboat "Astoria." Cylinder for Steamboat "Swan." Cylinder and Shaft for Steamboat "Narragansett." Injection Valve for Steamer "China." Cylinder for Steamer "Proprietor." Shafts for "Cypress." Steam Chest for Steamer "Anesseah." Details of "Wasp," Con. Rod, Crank, Crossheads, &c. Shaft for "Cuba." Shaft for "Vixen." Beam Strap for "Boston." Cylinder and Condenser for "Boston." Cylinder for "Palm."
4. **Stocks and Dies, Blocks, Falls, &c.**  
Double Tackle Blocks, S. L. 30. Brass Sheave Blocks, G. A. 3 and 4. Ratchet Drills, Works, Tool Repairs.
5. **Saw Mill Engines.**  
Hunt's Saw Mill Engine. Cook's Saw Mill Engine, Portable.
6. **Mining Machinery.** New York Ore Dressing Co. New York Zinc Co.
7. **Ore Crushers and Stampers.**  
New York Ore Dressing Co.'s Crusher. Bristol Crusher. Berdan's Crusher. Berdan's Stamper. Plumb's Crusher. Bullock's Crusher. Garden's Crusher. Hand Quartz Machines. Stillman's Crusher. Berdan's Model Crusher No. 8.
8.  
James Hamilton's Indigo Mill and Crusher. Tatham Bros.' Measuring Apparatus.
9. **Mixing Tubs.** New Jersey Zinc Co. D. F. Tieman B. 258.
10. 11. 12. 13. 14. 15.
16. **Hoisting Apparatus for Stores, &c.**  
Shaw's Hoisting Gear. C. M. Diamond's Hoisting Machinery. Havemeyer & Muller's Hoisting Machinery. Harris, Evans & Co.'s Hoisting Machinery. Haviland & Co's Hoisting Machinery. "Maid of Orleans" Hoisting Machines. Stuart's Hoisting Machines. Automatic Elevator.
17. **Portable Engines.** Portable Engine No. 1. P. O. Engine.
18. **Wrenches for**  
"Santa Anna;" G. A. 3 and 4; S. L. No. 31; I. O. 19 and 20; Hydraulic Engine; A. O. No. 1; "Adriatic;" A. No. 26; A. O. No. 2; "Alabama;" Yznaga's Engine; Nile Pumping Engine; "Rio;" Vacuum Pan No. 34; A. B. No. 58; B. No. 10; A. B. No. 18.

**19. Retorts and Stills for Distilling.**

Cleaver's Kettles. Sheridan's Kettles. Miller's Still. Adams' Kettles. Johnson & Sanford's Kettles. Wade-Kettle. Neffy-Pan. Brown & Irving's Still. Kelly, Briggs & Co.'s Soap Pan. Brundage & Co. Salazer's Soap Kettles.

**20. Harris & Evans' Sugar House Work.****21. Lowber's Cotton Seed Huller.****22. Pendulum Engines, 28' x 42'.**

Nos. 1 and 2.

**23. Ribbon Engine for Stern Wheel Boat.****24. Delgado's Rice Mill Work.****25. Hutchinson's Work.**

Skimming Spout. Bell Fixtures, E. Lind. C. 136 and C. 143 for Don Nicholas Plaud. Feed Pumps for Mount Victory. Cattle Mill for Don Felix Clauzell. Piston for E. Lind. Work for Don Jacinto Cora. Work for T. Harper. Work for A. Vilaret. Work for Don Juan Pou. Crosshead for Estate L. Bethelam. J. Gaicur's Crosshead. Don A. Vilaret's Cattle Mill Gear. C. 131, Don Juan Anglado. Estate Gregoria. C. No. 394, Wrought Iron Tank for Nicholas Plaud. Rock Shaft for Don S. Antonetie. Clauzel Hermanos. Brasses, Don T. E. Boyrie. San Juan, Estate. Clarifier Pipes, Eelix Clauzel.

**26. Berdan's Automatic Oven.****27.****28. Traverse Iron and Gun Fixtures for Forts.**

C. 12, C. 258, C. 9, C. 81; C. 711, Block and Hook for Diving Bell.

**29. Pillow Blocks, Hangers, Pulleys and Fly Wheels.**

Engine D. 14, Fly Wheel. Do. E. 8, 9 and 10, Fly Wheel. Do. B. 10, Fly Wheel. Do. 15' x 36', Fly Wheel. Water Wheel Shaft for Ivanhoe Mills. Meyer & Popenhausen, Shafting. Do. Pulleys. Hangers for 1½" and 2" Shafts. Fisher & Bird's Fly Wheel. H. P. C. 10 x 20 Fly Wheel. H. P. C. 12 x 24' Fly Wheel. H. P. C. 14 x 30' Fly Wheel. 18 x 4, 3, Fly Wheel. Mortise Wheel for Sloan & Leggett.

**30. Crane Alterations. I. O. Nos. 23 and 24.****31. Blowing Engines. "Roanoke" Blowing Engine. "Gen. Admiral" do.****32. Blowing Engines.**

"City of New York." A. B. 58. S. L. 30. A. B. 17. "Alabama." "Northern." "Augusta." "Metropolis." A. O. 1. "Ash and Oak." A. O. 3. A. B. 51.

**33. 34. 35. 36. 37.****38. Havana Arsenal Works.**

Cupolas. Building for Rolling Mill. Rolling Mill. Bed for Break Lathe. Plate Bending Machine.

**39. Tucker & Cooper's Square Engine, 26 x 48.****40. Johnson's Shutter Machine. Sectional Dry Dock Work.****41. Engine Designs of various kinds.**

Lake Propeller Engine, 182. Engine Space, comparison of Engines. Proposed Plan for the "Rio." Do. for Pumping Engine. Do. for Russian G. B. Engines. Plan of "Constitution," for German live. Engines for Rebel Ram "Merrimac." Do. for "Gen. Admiral." Do. for "Minnesota." Stern Port Bearing for "Megera." Engine of Sloop of War "Iroquois." Sugar Mill Engine. Engines for U. S. Sloops of War at Gosport. H. P. Oscillator Propeller. Vertical Pumping Engines.

**42. Johnson's Engine for China. New York and Costa Rica Condenser, &c.**

43. Nos. 1 and 2 Newtown. S. C. Ferry Boats.
44. Four Ferry Boat Engines, A. B. 52, 53, 54 and 55.
45. Tracing of Ferry Boat "D. S. Gregory."
- 46.
47. **Cut Offs.**  
Campbell & Thayer. Horatio Allen. Harlan & Hollingworth. Mathews & Moore. J. F. Ward. Sutton & Co. I. P. Morris & Co. Tucker, Cooper & Co. Danbar & Bartley. Pease & Murphy. "Underwriter." Merrick & Son. Betts, Pursey & Co.
48. Yzanga's Engine.
49.  
L. F. Nos. 1, 2, 3, 4, 5 and 6. A. Fitch. Shop. Hazard Powder Co. Hoe & Co. Tatham Bros. Bellingham Steam Engine Co.
50. L. F. Nos. 5 and 6.
51. B. F. Nos. 7 and 8; Sloan & Leggett.
52. Lee & Larned.
53. Lee & Larned.
54. Lee & Larned.
55. Fire Engine Alterations for Horses.
56. 57.
58. "Adriatic."
59. A. O. 4 and 5 or "Arago."
60. "Adriatic."
61. "Webb" or "America." "Santa Anna" or "Edgar."
62. "Adriatic," Alterations.
63. "Russia" or "Japanese."
64. "Golden Gate" or "G. G."
65. I. O. 19 and 22, or "Ashuelot" and "Pawtuxet."
66. A. O. No. 1 or "Augusta." A. O. No. 3 or "Knoxville."
67. "Siam Engines." "Rio" Engines.
68. A. O. No. 2, "John L. Stephens."
69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83.  
84. 85. 86. 87.
88. **Deck Plans, &c.**  
"Arago," Midship Section. "Berry," do. "Ash and Oak," do. "Peru," do. "Lion and Eagle," do. "Russia," do. "Cherokee," do. A. B. 17, Gallows Frame. "Boston," Deck Plan and Gallows Frame. "Oregon," Gallows Frame. "June," do. "Wm. No. 2," Deck Plan and Gallows Frame. "Hornet," Gallows Frame. "Vixen," do. "Newport" (1846), do. "Erie," do. "Cuba," Deck Plans. "Eagle," do. "Siam I," do. "Rio," do. "Quinebaug," do. Design for Ferry Boat. "Franklin," general arrangement of Machinery. A. O. Nos. 4 and 5, Boiler Keelsom. N. and S., general arrangement. A. B. No. 67, "Newport Section." S. L. 30 and 31, Suspension Frame. "Guadaloupe," do. "Berry," do. "Southerner," do. "Northerner," do. "Santa Anna," do. A. O. No. 2, do. A. O. No. 4, do. Johnson's Engine," Section and Gallows Frame. "Berry," general arrangement of Machinery.



**89. General Plans, Marine Engines.**

H. D. Nos. 63 and 64, "Wampanoag." S. L. No. 30, "Nashville." J. B. 2 and 3, "Monterey" and "Mariposa." G. A., "General Admiral." G. A. 3 and 4, "Re de Italia." "Humboldt." "Atlantic." "Florida." "Golden Gate." "Adriatic." "Arctic." I. O. 19 and 22, "Ashuelot" and "Pawtuxet." "Webb" or "America." A. B. No. 58, "Constitution." A. B. No. 2, "John L. Stevens." G. B. Nos. 5 to 12, "Unadilla," "Seneca." "Pembina," "Ottowa." J. B. No. 1, "North Carolina." G. B. 13 to 18, "Aroostook," "Kennebec," "Ottowa." I. E. No. 16, "Sebago." I. E. 17, 18 and 19, "Port Royal." "Sonoma." "Conemough." "N. and S.," "Florida" and "Alabama." G. B. 1 to 4, "Franklin." "Berry" or "Marion." "Columbia." "Leon" (Spanish Steamer). "Lion and Eagle." "Guadeloupe." "Arctic." "Northerner." "Ash and Oak." "Palmetto." "Hermann." "Perio." "Elk and Deer." Edgar" (Mexican Steamer). "Russia." S. W. 1 and 2, "Adirondack."

**90. Deck Plans, &c.**

A. O. 4 and 5, or "Arago." "Humboldt." "Russia." I. O. 19 and 22, "Ashuelot" and "Pawtuxet." "Rio." A. B. 58, "Constitution." A. B. 60, "Sacramento." A. B. 60. A. B. 66. A. B. 63. A. B. 59. A. B. 61. A. B. 62 and 65. "Joseph Belknap," Gallows Frame. "Northerner," Deck Plan. I. E. 13 and 14, Framing. G. A. 3 and 4. G. A., and G. A. 3 and 4, Deck Plan. I. E. 15, Engine Frame. I. E. 16, do. I. E. 17 to 19, do. "Cromwell," Deck Plan. "Arctic," do. I. E. 18 and 19. "Ribbon." "Cromwell," Keelsom. Plan of Steam Yacht. I. E. 17, Deck Plan and Frame. "Adirondack." A. O. 1. A. B. 17, Suspension Frame. "Atlantic," Iron Deck. "Atlantic." "Columbia." "Havre," Deck Plan. "Arctic," do. S. L. 31. A. B. 18, Gallows Frame. Proposed Plan of Steam Lighter. "Berry" or "Marion," Boiler Keelsom. A. O. 2. "Adriatic," Suspension Frame. S. E., Frame. "Washington," Suspension Frame. "Newport," Gallows Frame. "Cuba," do. "Edgar" or "Santa Anna." "Albemarle," Iron Steamer. "Golden Gate," Suspension Frame. "Elk and Deer" or "California," and "Oregon," A Frame. "A. O. 4 and 5," Deck Plan. "Peru," do.

**91. Steamboat Engines. General Plans.**

I. E. 7, 8 and 9. "Rio." "Siam." "June." "Comet." "Oregon." "Erie." "Wasp." "China" or St. Lawrence." "Boston." "Hornet." "Newtown," for Ferry Boat "Martha." A. B. 51, "Long Island." "Tigress." "California" or "Wm."

**92. Wrought Iron Vessels.**

"Rio." "Ribbon." "Vencedor." Plan of Iron Boat for Captain Newton. Do. for Coast Survey.

**93. Stationary, Beam, and Pumping Engines.**

N. O. Pumping Engine. Pumping Engines, E; P. E. B. 17 and 18 (Polk's); D.; C. A.; B.; F. 1. High Pressure Engine 120, H. P. for Chas. Edmeston; V, 12 x 24. L. F. 2. B. F. P. 1. V, 3 and 4. Engine 4' x 26'. L. F. 6. Vertical Beam Engine, 8 x 18. L. F. 9, and Nile Pumps.

**94. Plan and Arrangements of Sugar Work.**

General Plan of Engine and Mill "C." Yznaga's Arrangement. Bradin's do. Sugar Mill C. 11. O'Hard, Jacobs & Co. Don Juan Vivas. Valcour Aime. Fortier Brothers. C. K. Diamond. Mill D. 3 and 4. E. 20. I. & H. Perkins. Bringiers, Clarifiers. Gordon's Plantation. Latory. James Porter. Henry McCall. DeForest's. Wilkinson's. Lapices. Kennee. Dominique De Lober. Tillotson. Lanfear & Polk. Mill F. 3. Massary. Bringiers' Tiger Arrangement. Barrows'. Perkins'. Mill D. Fernandy. Mill I. 2, Arrangement. C. 11, do. Craig's do. Osgood's do. Bliss' do. Mill D. 7 do. McManus' do. Forestall's do. Joubert do. Colton do. Cook & Caldwell's do. Johnson's do. E. 6.

**95. Stationary Horizontal Engines and Steam Pumps.**

Hor. H. P. Engine, 12 x 30. Do. No. 7. H. P. Con. Rod Engine, 15'' x 3', No. 5. Steam Pump B. No. 1. Do. No. 1. Do. Nos. 5 and 6. Congress Pumping and Blowing Engine. Pumping Engine S. L. No. 30. "Russia" Steam Pump. G. B. 13 to 18 do. Engine Z. No. 1. Oscillator No. 1. Hunt's Engine. Portable do. Ribbon do. 5 Horse Engine, New Plan. H. P. Con. Rod Engine. Engine E. Nos. 1 and 2. Do. 20'' x 4', No. 2. Do. 8½'' x 30'', A. No. 26. Do. 15'' x 3', No. 6. Do. 5'' x 12''. Do. H. D. No. 94, 6'' x 12''. Franklin Elevating Engine. Atlantic's Blowing Engine. H. P. Con. Rod Engine, 8'' x 18'', Nos. 2, 3, 4 and 5. Roanoke Blowing Engine. Crane Alterations, I. O. 23 and 24. Borden's Engine. Blowing Engine, I. E. 18 and 18.

**96. H. P. Engines. Arrangements of Pipes.**

Campbell & Moodie. Improved Steam Saw Mill. New Orleans Cotton Press Co. Rolling Mill Engine, A. No. 8. Engine 20'' x 4', No. 2, for Jewell & Son. Johnson's Draining Wheel. Engine A. 30 and 34, Freeman's. Tucker & Cooper. Deits & Brothers. F. No. 3, Engine. E. Nos. 8, 9 and 10, do. Yznaga's do. H. P. Con. Rod Engine, 14'' x 3'. Old Shop Engine. Johnson's Flour Mill. House of Refuge. Doanes. Fowler. Lowber. Lamens. Engine, 18'' x 3½, No. 1. Do. E. No. 2, Noah Waterbury. Thompsonville Carpet Co. N. Y. Dyeing and Printing Co. Engine, D. 10 x 11, Murdeck's. Latory's. Stoddard & Dunham. Forsythe & Simpson. Engine G. No. 1. Brick Arrangement.

97.

**98. Wheels and Propellers.**

*Water Wheels.*—A. B. 61. "Siam." A. B. 58. A. B. 59. A. B. 60. "Rio." L. P. 30. "Atlantic." "N. & L." A. O. 2. "G. G." "Columbia." A. O. 4 and 5. "Adriatic." "Arctic." "Berry." "Elk and Deer." "Metropolis," Proposed Plan. "Lafayette." A. B. 17. "Webb." A. B. 51. "Wm." "Ash and Oak." "Santa Anna." A. A. 18. A. O. 1. "Northerner." "Newtown." *Propellers.*—"Russia." I. O. 19 and 22. "Adriondack." G. B. 13 to 18. G. B. 19 to 22. "Revenue Cutter." "H. D. 63 and 64."

99.

100.

A. B. 56 and 57. "City of Boston" and "City of New York," or "Mohawk" and "Yantic."

101. "Atlantic," Details and Repairs. V. D. 92 and 93.

102. A. B. 18 and 51, or "Fairhaven" and "Long Island" Ferry boats.

103. "Atlantic."

104. A. B. 17, or "Metropolis."

105. "Atlantic."

106. A. B. 17, or "Metropolis."

107. "Arctic."

108.

109. "Baltic," Repairs.

110. S. L. 30 and 31, "Nashville" and "Columbia."

111. "Havre."

112. "Columbia," for the Pacific.

113. "Franklin."

114. N. and S. and "Berry," "Alabama," "Florida."

115. "Washington," "Hermann," "Lafayette."

116. "Ash and Oak," or "Cherokee" and "Tennessee."
117. "Northerner," "Elk and Deer," or "California" and "Oregon."
118. H. D. 63 and 64, or "Wampanoag."
119. **Horizontal High Pressure Engines, New Patterns.**  
17 x 24, Sackett & Mackey.
120. H. D. 63 and 64.
121. S. W. 1 and 2, "Adriandack."
122. H. D. 63 and 64.
123. S. W. 1 and 2.
124. G. A. 1 and 2, "General Admiral."
125. G. B. 19 and 22, "Miantinomah."
126. G. A. 1 and 2.
127. G. B. 13 to 18, "Aroostook," "Kennebec" and "Owasco."
128. G. A. 1.
129. G. B. 1 to 4, for "Russia." G. B. 5 to 12, "Unadilla," "Seneca," "Pembina"  
"Ottawa."
130. G. A. 3 and 4, "Re d' Italia."
131. V. D. 68 and 69, "Clara Clarita."
132. Copied Drawing of "Wampanoag," for Navy Dep't.
133. J. B. 1, Cromwell's Iron Boat, "North Carolina."
134. "Roanoke's" Alterations.
135. J. B. 2 and 3, "Monterey" and "Mariposa."
136. 137. 138. 139. 140. 141. 142. 143. 144.
145. **Horizontal H. P. Engine, New Patterns.**  
G. 528, Burr & Black, Louisville, Ky. G. 978, Acadia Coal Co., Nova Scotia.
146. 147. 148. 149. 150. 151. 152. 153. 154.
155. **Sea Valves for Steamers.**  
G. A. 3 and 4, Pacific Mail Steamers. Stills for Making Fresh Water. Fortier & Brother. B. 389, Morten's Heaters. I. O. 19 to 22, Fresh Water Apparatus. E. 72.
156. **New Orleans Pumping Engine.**
157. **Delgado's Beam Engine.** A. 60.
158. **Nile Pumping Engine.**
159. **Beam Engine.** H. 1. Do. B. F. 1.
160. **Borden's Pumping Engine.**
161. **Beam Engine.** C. B. 4 and 5. Velodius and S. B. Massary.
162. **Pipes and Work for Silver Lake Mine,**  
Dutchess Co., N. Y. Geo. H. Brown.
163. **Beam Engine.**  
C. A. 1, 2 and 3, for A. N. Jubert, Guyana, Ollara Jacobs' Estate, Concordia
164. I. E. 16, "Sebago."
165. **Bridges, Post's Patent Truss.**



166.

I. E. Engines for Ferry boats. I. E. 78 and 9, "Lydia," "Addie," "Agnes."  
I. E. 10 and 11, "Ellen" and "Louise." I. E. 12, "New York of Albany."  
I. E. 13, 14 and 15, Dr. Rainey's 3 Ferry boats.

167. **Bridges, Post's Patent Truss.**

168. I. E. 17, 18 and 19, "Port Royal." "Sonoma," "Connough."

169. **Beam Engine, S.**170. **Dredging Boat for New Orleans.**171. **Steam Pumps, A. B. and 2.**

172. 173. 174. 175. 176. 177.

178. **Horizontal Engine Designs.**179. **Borden's Hoisting Engines, for Mines.**180. **H. P. C. Engines, 15 x 36.**181. **Governors for Engines.**

Engine, 15 x 36, 6. Do. A. 26. H. P. Con. Rod, size 2. Do. 5, 8, 9 and 10.  
Do. 7. Do. 14 x 48.

**Chronometric Governors.**

P. M. S. S. Co., Gov. Acct. L. F. 2. Engine, 18 x 3 $\frac{1}{2}$ . Brower's. N. Y.  
Brick Co. C. A. 1, 2 and 3. Pumping Engine, B. 19. Silver's Governor.

182. H. P. C. Engines, 14 x 24. Do. 14 x 30. Do. 14 x 48.

183. **Horizontal Engines, (Old Pattern.)**

D. 12 x 48. E. 15 x 48. E. 16 x 48. F. 18 x 48. G. 20 x 48.

184. H. P. C. Engines, 6 x 12. Do. 8 x 18. Do. 10 x 20. Do. 10 x 24. Do. 12 x 24. Do. 12 x 30.

185. **Horizontal Engines, (Old Pattern.) 18 x 42.**186. **Valve Gear for H. P. Engines.** Stephenson's.187. **Horizontal Engine, (Old Pattern.)** B. 10 x 36. C. 12 x 36. X. 15 x 36.188. **Repairs for H. P. Engines, Cylinder Valves.** Morten's Engine.189. **Horizontal Engines, (Old Patterns.)** A. 8 x 30.

190.

191. 5 H. P. Engine, New Series.

192. A. B. Engines, (58—102.) Cast Iron Work. Main parts common to all.

193. A. B. 67. "Newport."

194. A. B. Engines, (58—102.) Wrought Iron Work. Main parts common to all.

195. A. B. 67. "Newport."

196. A. B. Engines, (58—102.) Valve Gear and Instrument Fixtures.

197.

198. A. B. (58—102.) Valves and Strainers.

199.

200. A. B. (58—102.) Pipes and Tanks.

201.

202. A. B. (58—102.) Galleries.

203. A. B. 60.



204. A. B. (58 to 102.) Scale Drawings and Wood work.
205. A. B. 58 and 59. Old Drawings.
206. A. B. (58—102.) Circulating Pump Fixtures.
- 207.
208. **Begasse Furnace.** A. Stillman.  
Sugar Cooler. Martinez, Gonzales & Co. Sugar Cooler. Garr's Begasse Furnace. Perkins'.
209. **Charcoal Retorts.**  
Porter's. McManus' Bone Black Retorts. C. H. Diamond's Retort. Tillotson's do. Perkins' do. Harris, Evans & Co's do.
- 210.
211. **Gerricke's Turbinate Pumps.**
- 212.
- 213.
214. **House Heating Apparatus.** Green Point School House. Stewart Brown.
215. **Air Pumps.**  
H. 263, Air Compressors for Twin River Silver Mining Co. Brown's Air Compressors.
216.  
C. 945, Hoisting Machine, 2 Drums. D. 885, do., 6 do. H. 1,195, do., 2 do. H. 471, do., 1 do. Capstan Gear, P. M. S. S. Co.
217. **Allen's Car Seat.**  
Bucket for Mud Digger. Pile Driver. Washing Machines. R. R. Car Box, for Mississippi R. R.
218. **Shop Tools, &c., Work Gearing, &c.**  
Plans and Lithographs of Shop. Cars for Shop R. R.
219. **Oscillators.** Stationary and for Hoisting and Blowing Engines.
220. "C. E." Commission Experiments.
221. **Laffin's Fibre Mill.** "H. M. 2," do.
222. **American Air Light Co.**
223. **Fibre Guns.**
224. **Brick Machines.**
225. **Force and Suction Pumps.**  
Texidore & Brothers'. Estate St. Helena Force Pumps. Don Felix Clauzel do. Pedro Virilla Molasses Pump. Don Nicholas Plaud Liquor Pump. Ferguson's Vacuum Pump. Plan for working Pump at "Works." Aimes' Force Pump. Saiver's Lifting Pump. Dr. Rainey's Pumps. Gilbert, Moody & Secor's Pump.
226. **Brick Machines.**
227. **Valves, Cocks, &c.**  
Safety Valve for Boiler of Pumping Engine, B. 1. 3, Charging Valve for Vacuum Pan. Check Valve. Do. with Brass Ball. 2, Safety Valve. 12, Vacuum Valve. Filter Valves. Screw Stop Valves. 4, 22. 3, 17.  $2\frac{1}{2}$ , Safety Valves. 2, 7, do. 6, 27. 3, Safety Valve. 4, do. Cock for Indicator. Brass Globe Valves. 2, 11, Safety Valves.  $2\frac{1}{2}$ , 3, do.  $2\frac{1}{2}$ , 13, do. 4, 18, do. 2, 10, do. 4, 12, do. 7, 8, do. Double Steam Stop Valves.  $4\frac{1}{2}$ , 25, do.  $1\frac{1}{2}$ , 1, do. 5, 20, do. 5, 26, do.  $2\frac{1}{4}$ , 12, do.  $5\frac{3}{4}$ , 21, do.  $1\frac{1}{2}$ , 3, do.  $1\frac{1}{2}$ , 1, do. 4, 6, do.  $3\frac{1}{2}$ , 23, do. 5, 7, do.  $1\frac{1}{2}$ , 2, do.  $2\frac{1}{2}$ , 15, do.  $4\frac{1}{2}$ , 42, do.  $2\frac{1}{2}$ , 4, do.  $3\frac{1}{2}$ , 16, do. 2, 2, do. 3, 5, do. 2, 5, do. 2, 6, do. Steam Screw Stop Valves.  $1\frac{1}{2}$ , 4, do. 2, 9, do.

2 $\frac{1}{2}$ , Brass Charging Valve. 3, Discharge Cocks. 4, do. Globe Oil Cock. Outboard Delivery Valve. B. 924, Galway & Casada. 3, Safety Valve for Aimes. C. 55, Stop Valve. Arago's Feed and Blow off Valve. S. W. 1 and 2, Blow off Valves.

**228. Lithographs, Prints, &c.**

**229. Marine Boilers, Horizontal Tubular and Flue.**

A. B. 62, 65 and 66. A. B. 59. A. B. 61. Atlantic. Shop. A. B. 60. A. Morgan. Bay State. Mohawk and Yantic. Cary & Co. Revenue Boiler, &c. Cromwell's Iron Boat. Baltic. G. A. 3 and 4. G. A. I. O. 19 and 22. Alabama type, 1. Do. do. 2. Wm., 1. G. G. Williamsburg Ferry Boat. Hermann. Santa Anna, or Edgar. Fox. Experimental Boiler. Clara Clarita.

**230. Planers.**

Portable. Large Planers. Planing Machine, 1. Do. I. 1 and 2. New do. Boston. English Planer, for A. Collyer & Co. Small Planing Machine. Large Turn Table Lathe Shop, 1.

**231. Marine Boilers, Vertical Tubular.**

G. B. 19 to 22. Arctic. Collins. San Jacinto. S. W. 1 and 2. G. B. 1 to 4. G. B. 5 to 12. G. B. 13 to 18. Atlantic. Roanoke Donkey Boiler. A. B. 17. Michigan. Gordon. Adriatic.

**232. Lathes.**

Havana Arsenal Lathe. Lathe A. 5. Do. Y. 9. Do. F. Do. B. 2. Do. Z. 25 and 26. Do. Y. 3 and 4. Tupper's Lathe. H. L. Strong's Lathe, A. 6. Lathe, A. 1. Large Face Lathe. Wm. Seller's Shafting Machine.

**233. Marine Boilers, Flue.**

A. B. 58. Shop Boiler. A. O. 1. Santa Anna. I. E. 12. Washington. Fletcher, Harrison & Co. Tatham & Brothers. S. A. Halsey. Hoadley & Street. Star of the South. Victoria. A. O. 4 and 5. I. E. 13, 14 and 15. I. E. 7, 8 and 9. Booth & Edgar. A. B. 51. S. L. 30. Southerner. Alabama. Webb or America. Columbia. Tigress. Champion of Lake Erie. Florida. Lackawana or China. General Tacon. Bazan. Kosciusko. Leon. Congress. Sabago. Sunwick. Marion or Berry. Newtown or Martha. Neptune. A. O. 1. Johnson's. Maryland Mining Co. Ash and Oak. Star and Oregon. Erie. Northerner. China. E. D. 1. A. B. 18. Meta. Ferry Co., South and Union. June. Franklin. Rimae. Achillas. Guadelquiver. N. and S. Humboldt. Four Ferry Engines. Sloan & Legget.

**234. Drilling Machines and Boring Mills.**

Giraffe Drill. Portable Boring Machine. Boring Table, 1. Boring Bars. Boring Bar for Cone Valve. Do. for Taper Holes. Radial Drill.

**235. Boilers. Cylinder, Flue and Plain Cylinder, High Pressure.**

C. 315, C. 638, C. 641, Oriatavia & Co. I. & H. Perkins. Thomas Hutchinson. Don A. Villerett. C. 26. C. 1. Jacinto Cora. Fibre Mill. H. P. Con. Rod, 14 x 48. C. 435, C. 436. A. 60, Delgard. B. 518, B. 519, Capt. Hart. Milledgeville Manufacturing Co. Wilkinson. Texidor. Burchard's. B. 10, R. S. Place. C. B. 3 and 4. E. Lind for Engine, 15 x 13. R. Hoe & Co. B. F. 2, DeForrest. C. A. Fernandez. Peter Cooper. R. H. Steel's. F. D. 1. Hunt's Saw Mill. B. 638, E. Gaudelet. Richardson. Kettridge. Perkins. Engine B. 10. DeForrest & Co. Oppenheimer's. G. B. Nichols. Brice. F. D. C. Boiler. Don Jacinto Cora. C. B. 4 and 5. Robert Stevens. DeForrest & Hodge. New York and Erie Railroad Co. Nile Pumping Engine. E. 20. Thompsonville Carpet Co. Luther & Mason. Yznaga's Engine. A. Coit. Benedict & Burnham. American Bible Society. Tracey's. Hazard Powder Co. H. P. 28. D. F. Tiernan. Stienway & Son. Delogney's. J. Jewell & Son, Engine 20 x 4, 2. Sanchez. G. H. Delacroix. Schlessinger. Royal Arsenal, Havana. Don Simon Arrechea. Don Carlos Malibran. G. B. Lamar. Scull & Manuel.

**236. Bolt and Screw Machine.**

Key Grooving do. Slotting do. Place's new Screw Cutting do. Bolt do., 5. Hodge's Screw Cutting do. Screw do., 7. Small Crank Slotting do. Pillar do. Key Grooving do.

**237. Boilers, Locomotive. Vertical Tubular and Donkey.**

A. B. 60, 61, 62, 65, 66, 92 and 93, Donkey Boilers. A. B. 58, Donkey Boilers. Rio. Pacific Mail Donkey Boilers. Cypress. S. L. 31, Donkey Boiler. S. L. 3, do Berry. do. N. and S., do. Asa Fitch. Hydraulic Eng., H. 2 or Y. 6 and 7. Parsons & Co. Platner & Smith. Bird's. Bathing Co. N. D. or C. E. Boiler. J. W. Wallace. Baldwin's. Lowber & Leroy. Gwynn. Ribon Boiler. Gale & Co. Stoddard & Dunham. C. K. Diamond & Co. Siam Engine, 2 and 3. Boiler Shop Boiler. Johnson & Brother's. Osgood's Boiler.

**238. Punches.**

Gooseneck Punching Machine. R. R. Punch, for Raleigh and Gaston R. R. Co. Screw Punch. Fly Punch. Boiler Shop Punch. Hand Punches, for Havana Arsenal. Double Acting Punching Machine. Screw Punch, for Coppershop. Hydraulic Punching Machine.

**239. Boiler, Horizontal, Cylinder, Tubular.**

Ranson. I. & B. Johnson. A. O. 4 and 5, Pumping Engine Boiler. Engine, Y. 9 and 10. Manhattan Gas Co. Royal Arsenal. Tillotson. House of Refuge. 7 H. P. Boiler. 6 H. P. do. Hiscox. Hermann, Donkey Boiler. Baltic, do. Collins. G. A. Donkey Boiler. Stedman. James M. Shaw. Watermire & Breman. Bowery Savings Bank. Locomotive Boiler, 1. Do. 2. Funneling Machine. Mackert's Lock Factory. R. M. Stratton. Pacific Mail S. S. Co. B. 819. Habana R. R. Atlantic's Pumping Boiler. Domingo's. Crane Boiler. Russia's Donkey Boiler. C. 684. John A. Moore. Dr. Herigronet's.

**240. Mabbett's Railroad Chair Punch.** Boiler Shop Table Punch.**241. Boiler Fixtures.** H. P. Stationary.**242. Boiler Shop Tools.**

Riveting Machine. Shears. Plate Bending Machine. Do. do. for Havana Arsenal. Shearing Machine.

**243. Boiler Fixtures.** Marine.**244. Boiler Shop Tools.**

Hand Boiler Shears. Shackles. Pall Wrenches. Socket Machine. Rotary Shears. Adjustable Hook. Flange Clamps. Bending Blocks. Cramps.

**245. Copied Drawings.**

A. B. 62, 65 and 66, Chauncey, Montana. Arizona. A. B. 61, Colorado. Atlantic. A. B. 58, Constitution. Tobago. Tatham Brothers. Williamsburg. Fanny. Southerner. A. B. 58, Donkey. G. A. Palmetto. A. B. 17, Metropolis. Victoria. Four Ferry Boats. Shark. Boston. Peru. H. D. 63 and 64. Erie. A. O. 1, Augusta. Nashville. Berry or Marion. Achilles. Russia. Columbia. Crane Boiler. H. D. 63 and 64, Donkey. Bay State. Alabama. R. R. Co. Single Propeller Engines. China. Kosciusko. Star and Oregon. Northerner. Columbia. Ribbon. Cromwell's. Fletcher, Harrison & Co. A. O. 4 and 5, Arago. I. O. 19 and 22, Ashuelot, Pawtuxet. Rimac. Cherokee and Tennessee, or Ash and Oak. Michigan. Newtown. G. A. Side Wheel Gun Boats. S. W. 1 and 2, Adirondack. Shop Boiler. E. H. Simpson. Leon. Ed. Gaudelet. A. B. 56 and 57, City of Boston, City of New York. A. B. 59, Golden City. Union. Maryland Mining Co. June. Neptune. A. B. 67, Newport. Hermann. Crane Boiler. Alabama. I. E. 13, 14 and 15. A. B. 51, Long Island. Tobago. Florida. A. Morgan, Georgetown, S. C. A. B. 59, 60, 61, 62, 65 and 66, Donkey Boilers. Tigress. Santa Anna or Edgar. Champion of Lake Erie. Franklin. Star of the South. Florida.



## SECOND SERIES.

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1. O'Donnell's Saw Mill. Williamson, Munn & Co's Cocoa Crusher. Steamer Eagle. Plate Bending Machine for Boiler Shop. Trotter & Stillwell's Pillow Block. Experimental Account. Northener's Beam. Drying Cylinder. Empire's Air Pump and Reservoir.
2. Steamer June. Seller's Hammer (old details). Loubat's Girders. South Carolina. Connecting Rods for S. M. Dodge.
3. Steamer Newport. Manhattan Gas Co's Hoisting Apparatus. Connecting Rod, Steamboat Fox.
4. Washington (old drawings). Palmetto's Beam. Steamer Oliaba's Bracing for Thrust Bearing.
5. Seller's Hammer. Steamers Southerner, China, Philadelphia and Chesapeake. Ribbon Winding Machines. Washer Gate.
6. Hydraulic Testing Machines for Pipes. Exhibition Building, Crystal Palace.
7. Benton, Crook & Co's Blowing Cylinder. Foundry Machinery. Drying Cylinder for H. V. Butler.
8. Steamer Philadelphia's Cut-off. Howland & Moller. Bolts, &c., for Cattle Mill, B. Steamer Massachusetts.
9. Coal Trucks for Steamers and Sugar Houses. Tillotson's Retorts. Dr. Rainey's Timber Baths. Silver's Governor for Propeller Caledonia.
10. Shafting and Pump for Manhattan Gas Co. Valves, &c., for Freeman Rawdon. Steamer Arabia's Out-board Bearing. Steam Air Pump.
11. Repairs to Engine of Henrietta Estate. Stand and Bolster for Star Shafting, Tucker & Cooper. Sole Plate for Star Shafting, Tucker & Cooper. Slabbing Machine, Carhart & Needham.
12. Steamer June. Blowing Cylinders.
13. Animal Black Machine. Reefing Paddle Wheel.
14. Animal Black Machine. Southerner's Water Wheel. Claghorn & Cunningham. E. Sawyer & Co., work for.
15. Steamer Leon. Lafayette, Bracing for Cylinder Slides.
16. Cook & Caldwell's Cotton Machinery. Hangers for Star Shafting. Virginia Copper Ore Dressing Co. Washington's Cut-off.
17. O'Donnell's Marble Machinery. Atlantic's Extra Fixing. Condenser for Steamer Empire.
18. Blowing Engine, Congress. Valve Gear. Experimental Account. Sluice of the Florid Dock, Havre.
19. Steamer Cornet, details Levivel's Crane. Steamer Congress' Crosshead. Circular Dies for Annihilator.
20. Steamer Alleghany's Slide Valve. Gearings for Ferry Bridges. Dr. Rainey's Pile Cutter. Steamer South Carolina. Girders for A. M. Lawrence.
21. Engine, D, No. 7. Winfield's Screw. Steamer Philadelphia. Rolling Machine for Corrugated Plates.
22. Manhattan Gas Co. Lapice's Turn Table. Morten & Brenier. Logwood Mill, Luther & Mason.
23. Locomotive Cut-off. Beam for Pumping Engine, C, No. 1. Manhattan Gas Work Apparatus. Porter's Steam Pipes. Raub's Double Acting Safety Valves. Ester & Co's Spur Wheels.



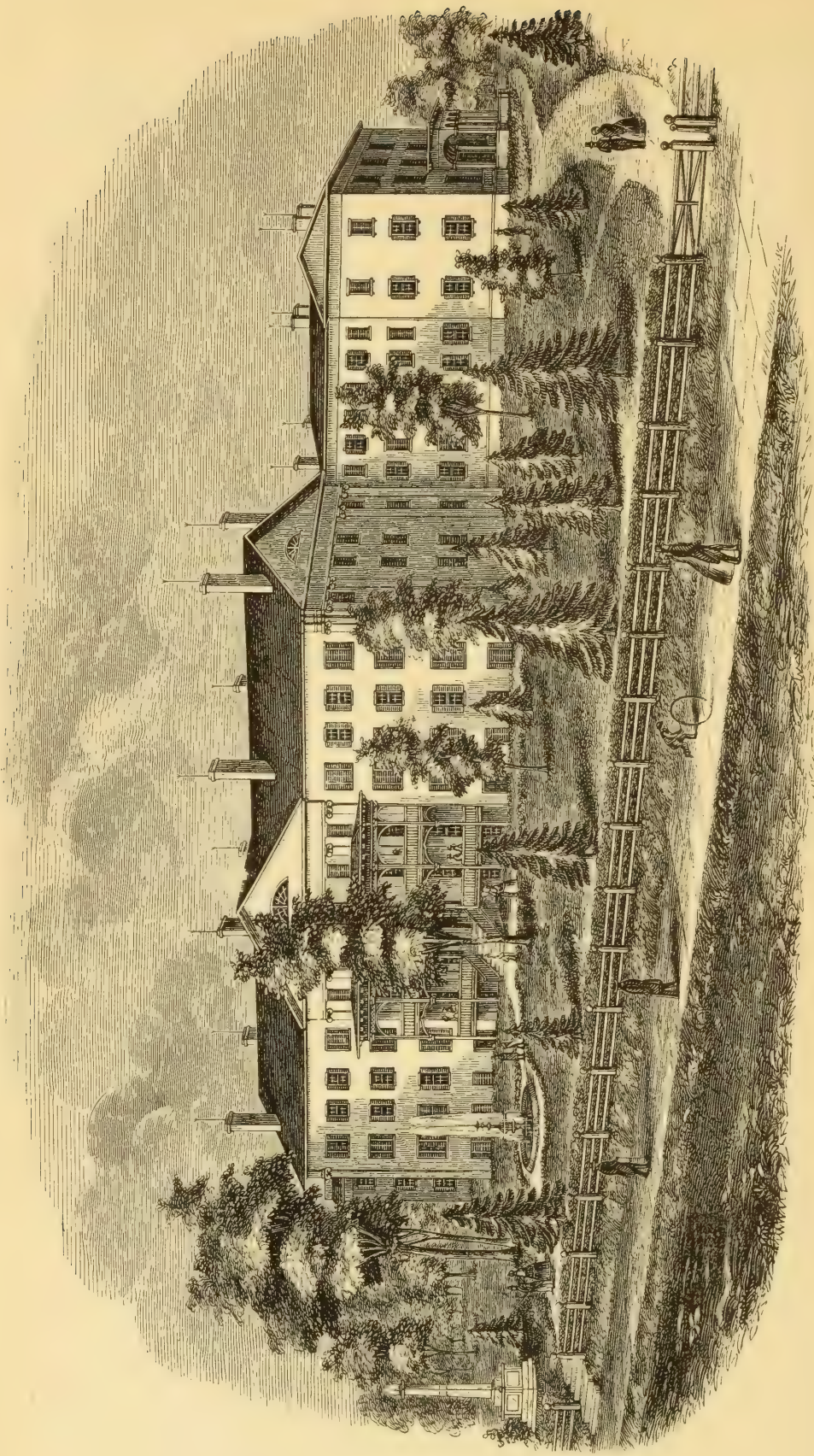
24. Miscellaneous Drawings of Cranes by H. Allen & Burnett. Steamer Erie. Wheeler, work for. Quimby's Steam Whistle.
25. R. S. Turnbull, Shafting, &c. Washington's Cut-off. Adjustable Cut-off. Sea Gull, Pipes.
26. Goodell's Blowing Cylinder. Steamer Star. Atlantic's Register. Cranes. Heater for Steamer Trinidad. Work for R. S. Stevens. Piston Rod for Tupper.
27. Palmetto's Cut-off. Tigress. Foundry Machinery. Lord's Safe. Coffee Mill. Cattle Mill for Cardose.
28. Zephyr's Cut-off. Valve Chamber for Steamer Unicorn. S. N. Dodge, Engine Repairs.
29. Lyman's Meat Car. Begasse Arrangement. Poppet Valves for Steamer Massachusetts. Powhattan.
30. Paper Mill. Steamer Osprey, British and West India Mail Steamer. Cook & Caldwell's Cutter. Barnes' Wheel Arrangement. Shafting for Smith and Boiler Shops. Shaft for Cattle Mill, Rattan Estate. Design of Fly Wheel.
31. Cattle Mill, C, 18 by 22. Johnson's work. Clasp Coupling, Jackson. Coupling for Shafting, Smith Shop. Tillotson's Pipes. Shaft for Steamer Gen. Pierce. Cook & Caldwell, Cotton Machinery. Holt & Owen, Cattle Mill. Mud Machine.
32. Stevenson's Engine. Kerosene Gas Apparatus.
33. Side Frame for Locomotive. Jones' Planer.
34. Foundry Cranes.
35. Mallory's Experiments. Sugar Arrangements. Kerosene Gas Works, Philadelphia's Crank Pin.
36. Congress, Blowing Engines. Wall Drilling Machine for Boiler Shop. Log-wood Mill.
37. Circassia's Propeller. Vacuum Pan, X, No. 1, Connections. Glass Grinding Machine.
38. Stamper's Amalgamaters, &c. Steamer Lavosier, repairs.
39. Engine Register. French Gas Engine. Fitch's Water Wheel. Ferguson's Pan and Pumps. Vacuum Pan, Aimes & White. Diving Bell.
40. Steam Air Pump, No. 1. Boiler Shop Drilling Machine. P. T. Barnum's Drop Press.
41. Porter's Saw Mill. Naverte's Boiler Fixtures.
42. Scott's Sketches for Briningier's Clarifiers. Johnson's Boiler Fixtures. De-Forrest's Sugar House. Forsythe & Simpson's Engine Repairs.
43. Aimes' Pumps. Tracy's Old Engine. Tillotson's Boiler Fixtures. Day Register Fixtures.
44. Porter's Grist Mills. New York Dyeing and Printing Co. Lapia's Cutter. Steamer Lake Erie's Crank.
45. Anderson & Co's Boring Bar. Sugar Mill Details (old drawings). Palmer's Boiler. Cook's Blowers.
46. Scale Drawings of Saw Mills. Fish Presses, &c. Nile's Dredging Machine.
47. Potter's Cut-off. Steamer Golden Age, Surface Condenser. Pipes, &c., for Sugar Arrangements. Vacuum Pan, X, No. 1.
48. Lathe, Z. Alberti & Co's Swedge Block.
49. Forientee & Brothers. Pease & Murphy, Cylinder Head. Sloan & Leggett, Cylinder Head. Rawdon's Pistons.

50. Sterling's Saw Mill. Belts, &c. New Orleans Gasometer. Fitch's Water Wheel.
51. Brass Lifting Pump. Washington's Pumping Engine.
52. Slotting Machines. Steam Gauges. Shot Furnace. Drop Press. Tieman's Extractor. Tracy's Old Engine. Pipes for Sugar Arrangements.
53. Hydraulic Press for Metallic Life Boat Co. Croton Water Fixture. Bre-vort's Saw Mill.
54. Hamilton's Saw Mill. Sheldon's Lifting Pump.
55. Davison's Saw Mill. Old New Orleans Pumping Engine. Tiger, Pumps. Lyman's Heater.
56. Arago's Tanks. Crane for Copper Shop.
57. Ships' Railings. French Engine Sugar Mill Arrangement. Allen's Car Seat.
58. Pumps, Rotary, Lifting and Force. Davison's Plan for Steam Chest. Perkins' Work. Boston Press.
59. Oscillator, A, No. 1. Shaft for Sugar Mills. Crane for Copper Shop.
60. Pipes for Sugar Arrangements. Francis' Metallic Life Boat Co. Tuckerman's Pumps. Lapice's Vacuum Pan. Stove for Heating 24th Shop.
61. Gasometer in 14th Street. Sugar Arrangements (old detail drawings). Pump for Brooklyn Sugar Refinery. Stewart's Pumps.
62. H. McCall's Air Pump. Steamer Merlin. Blowing Engine. Davison's Compound Rail Chair.
63. Hamilton's Saw Mill. Pumping Engine (old drawings). Sugar work for Fernandy. Brass Hand Pump.
64. Crane for Copper Shop. H. V. Butler's Washing Machine. Pile Drawer.
65. Cook's Retort. Stillman's Safety Fuse. Perry's Gas Engine. Merrick & Town's Sugar Crusher. Stewart's Sugar Crusher. Shafting for Osgood's Sugar Cutter.
66. Sturge's Crusher. Water Elevator for Henrietta Estate. Boston Blowing Engine. Oscillator, A, No. 1.
67. Sugar Mill, S, No. 1. Diving Bell. Vacuum Pan.
68. French Gas Machine. Vacuum Pan, V. Aimes. Saw Mill. Kittridge's Pumping Engine.
69. Clarifiers. Pipes, &c. Engine, D, No. 15 and 16. Pipes for Sugar Arrangements.
70. Berdan's Oven.
71. Tupper & Lee, Turning Machine. Lake Propeller Engine, No. 1 and 2.
72. Coal Car. Submarine Excavator.
73. Allen's Quartz Washing Machine. Barley's Dovetailing Machine. Engine Register Fixtures for City Water Works. Tracings of New Orleans Pumping Engine.
74. Bisulphate Experiments. Punching and Riveting Machine. Hozen's Amalgamater.
75. English Cranes. Willoughby's Cart. Ship Railing. Gilmour's Patent Chain Stopper. Tilt Hammer for Welding Steel.
76. New York Belt and Packing Co. Leaf Filter for Dr. Henry. Steam Sluch.
77. Hutchinson's Excavators. Baird's Engine. Monstrom's Steam Wheel.
78. Light House. Buoy for Pacific Mail Co. (old).

79. 5 Horse Engine. Mitchell's Pile Driver. Engine and Arrangements of Sugar Mill. Pipes for 10 Horse Engine.
80. Loam Mill. Wilkinson's Air Pump for Press.
81. Sugar Mill Details (old drawings). Solomont's Amalgamater and Fixtures. Mortise Wheel. Sugar Mill and Arrangements. Turning Machine.
82. Sugar Arrangements. Davison's Hoisting Engine. Oscillator, 6 by 12. Plans of Mill Work, Floor, &c.
83. Plan of Cradle. Suydam's Alterations of Steam Engine. Saline's Screw Machine. Roller Bearers.
84. Mortar.—Reynold's Plow. Punching Machine, Tucker. Undershot Wheel.—Windmill. Oscillating Cylinder, 36 by 42 $\frac{1}{2}$ .
85. Berdan's Oven.
86. Lyman's Accelerating Gun, &c. Davidson's Car Brake. Crocker's Elliptic Wheel. Apparatus for Testing Wrought Iron Bars. Slide Valve, C, 306, Standard Brasses. D, 461, Small Cannon.
87. Fell & Wychoff's Caloric Amalgamater. Finishing Tool for Steam Engine, Column for Planisher. Gilmour's Patent Chain Stopper and Sheave Blocks. Buoys.— $\frac{1}{2}$  Ton Coal Tub.—Ship's Drag. } Pacific Mail Co.  
Capstan Heads.—Round Grate Bars.
88. Geared Fly Wheel, &c., for Kochler & Kupper. Read & Bro's Brewery Work.—Crank Shaft, Mississippi. B, 973, Soda Water Machine.—D, 668, Diving Bell. D, 693, Tank for Rail Road & Machinery Oil Co. B, 478, Pile Cutter. Plan of Rolling Mill. Overshot Water Wheel. Work for J. M. Eggert of Peru. Allen's Wooden Thimble Cutter.
89. Railroad Frogs and Points. F, 327, Soap Mixing Apparatus. D, 852, Cylinder for Sitka Marble Co. F, 58, 2 Guns and Carriages for Yacht Josephine.
90. L. L. Todd, Cast Iron Tank, 12 by 36. American Hat Machine. F, 15, Horse Power and Pump Connections.
91. Salt and Fresh Water Fixtures for Novelty Iron Works. Shop A, Pump and Boiler Shop Pipe and Tank.
92. F, 881, G, 197, Fletcher's Patent Grate Bars.
93. Brown Paper Sketches of Burr's Cotton Press.







AMERICAN ASYLUM.

# ALPHABET OF THE DEAF AND DUMB.

a



b



c



d



e



f



g



h



i



j



k



l



m



n



o



p



q



r



s



t



u



v



w



x



y



z



&







THE  
*Fifty-Fifth Annual Report*  
OF THE  
DIRECTORS AND OFFICERS  
OF THE  
AMERICAN ASYLUM,  
AT HARTFORD,  
FOR THE  
EDUCATION AND INSTRUCTION  
OF THE  
DEAF AND DUMB.

PRESENTED TO THE ASYLUM, MAY 13, 1871.



HARTFORD, CONN.:

WILEY, WATERMAN & EATON, STEAM BOOK AND JOB PRINTERS.

1871.





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Hon. CALVIN DAY.

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WILLIAM B. FLAGG, MASTER OF THE SHOE SHOP.

Miss MARGARET GREENLAW, MISTRESS OF THE TAILORS' SHOP.





# REPORT OF THE DIRECTORS.

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TO THE PATRONS AND FRIENDS OF THE AMERICAN ASYLUM:

In any review of the 55th year of the Asylum, which has just closed, the first thought which occurs to any of its managers is, the special losses we have lately sustained by death.

Rev. Collins Stone, who had ably and most successfully filled the office of Principal of the Asylum since August, 1863, while driving with a friend, on the 23d of December, 1870, was struck by a train from New Haven, at the Sigourney street railroad crossing, in Hartford, and almost instantly killed. Our whole city, the great circle of the deaf and dumb throughout the country, and the widely scattered friends of Mr. Stone were shocked and deeply grieved by this tragic and deplorable event. To the members of this Board, and to all who were in any manner personally interested in the Asylum, or responsible for its management, the loss of Mr. Stone seemed almost irreparable. There were other learned and skillful instructors of the deaf and dumb, but none whose health, age, and knowledge of the history and requirements of our institution appeared to qualify them to fill completely and satisfactorily Mr. Stone's vacant place. After much consideration, Mr. Edward C. Stone, the oldest son of our late Principal, then at the head of the Wisconsin Institute for the Deaf and Dumb, was chosen to succeed his father. The Trustees of the Wisconsin Institution were reluctant to part with their chief instructor and manager, but kindly yielded to our request, and Mr. Stone was able to assume the duties of Principal of the Asylum about the middle of February last. So far

as the Directors are permitted to judge from the short experience of Mr. Stone in his new position, as well as from his previous training and labors elsewhere, among the deaf and dumb, they feel disposed to congratulate themselves and the friends of the Asylum upon their choice, and to anticipate for Mr. E. C. Stone, a career of increasing usefulness and success.

Many tributes to the character and services of the late Mr. Collins Stone have been brought to the notice of the Directors. Those of a public or official nature are appended to this Report, together with the resolutions passed by the Directors at their special meeting, held December 26, 1870. Mr. Samuel Porter, an old friend and associate of Mr. Stone, has recently contributed to the "Annals" a memorial paper, some extracts from which may also be printed in the appendix, as the latest and most carefully prepared estimate of Mr. Stone's life and labors.

There will also be found appended, the Resolutions of the Board, in March, 1871, on the occasion of the death of Mr. Barzillai Hudson, one of the original corporators of this Asylum in 1816. Mr. Hudson, though originally one of the youngest members of this Society, was from the outset a zealous and efficient worker in its behalf, and continued in its active service to the last, surviving all but four of his early associates. He was Secretary and Clerk from 1834 to 1860, and Chairman of the Directing Committee from 1836 to the time of his death. About eight months before his decease, he was attacked by disease which incapacitated him from constant and active discharge of his official duties, but they were still performed under his superintendence, and only the day before his death he conversed with much animation on matters connected with the Asylum. His full acquaintance with the history of this Institution, from its very inception, and his intimate knowledge of the details of its business affairs and local interests, make his death a peculiar and serious loss to the Board. His warm interest in the Asylum and the cheerfulness of youth, which he never lost, will long keep his memory fresh among his fellow laborers in this place.

Aside from these changes which death has made in our ranks, nothing has occurred during the past year to call for special notice. The report of the Treasurer is encouraging, and the

statement of the Fund shows, when compared with previous statements, that the encroachments upon it several years since, caused by the sudden and unprecedented increase of the expenses of living, have been made good. The income of the fund, however, though considerably increased by judicious and prosperous management, is relatively less than formerly in proportion to the necessarily greater expenses of the present time.

Owing to the temporary absence of Dr. Hunt, the usual Report of the Physician has not been presented. We are, however, able to say, that the health of our inmates during the year, has been remarkably good, and that we have seldom had greater reason for thankfulness in this respect.

The accompanying reports and tabulated statements will interest all connected with this or similar institutions, and we refer to these documents with more than ordinary satisfaction.

In behalf of the Directors,

J. C. PARSONS, *Clerk.*

HARTFORD, April 29, 1871.



## RESOLUTIONS.

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At a meeting of the Directors of the American Asylum, at Hartford, for the Education and Instruction of the Deaf and Dumb, held at their office on the 26th day of December, 1870, Calvin Day, Esq., President, in the chair, the following Resolutions were adopted :

“ WHEREAS, This Board has been convened to express our sorrow at the sudden and melancholy death of the Rev. Collins Stone, who was for nineteen years a teacher in the Asylum, and has been for the past seven years its Principal,

“ *Resolved*, That this calamity, which has filled the hearts of this community with grief, touches this Board in an especial manner, and that we sadly record our appreciation of the great loss which the Asylum has sustained by the death of the Principal. He brought to his responsible position an intellect of much vigor and force, thorough and earnest convictions of duty, great industry and executive ability, quiet firmness of character, dignity and courtesy of demeanor, a love for the unfortunate, and a willingness to work in their behalf with enthusiastic constancy. In the administration of the affairs of the Asylum, he labored earnestly and unweariedly, and with most gratifying success. His long experience in the profession, and his thorough acquaintance with its principles, eminently qualified him for the position he occupied, and placed him among the most distinguished instructors of the deaf and dumb. While we cannot but deeply mourn his departure from among us as a personal no less than a public loss, yet the life of christian activity which he led, inspires in our hearts a blessed and comforting assurance that, though his summons came without note of warning, he received the Master's promised welcome to a rest eternal and crown unfading.

“ *Resolved*, That, as a token of our respect, we will attend his funeral in a body, and that the Clerk of the Board transmit a copy of these Resolutions to the family of Mr. Stone.

J. C. PARSONS, *Clerk.*

The INSTRUCTORS of the AMERICAN ASYLUM desire to express their sense of the great loss which the institution has sustained in the death of its late Principal, the Rev. Collins Stone. To their deep feeling of personal bereavement is added a sense of public calamity which none others can realize so fully as they. None can know, as they do, how tireless was his energy and vigilance, how conscientious and unshrinking his faithfulness in every duty, and how his own earnest personality pervaded the entire institution, inciting and impelling all—yet in the least obtrusive manner—to similar promptitude and faithfulness. He was indeed to them in daily duty, and will ever be in memory, a most beloved associate and friend, whose loss is well nigh irreparable.

AMERICAN ASYLUM, Dec. 27, 1870.

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“INDIANA INSTITUTION FOR EDUCATING THE DEAF AND DUMB,

INDIANAPOLIS, Jan. 4, 1871.

“At a meeting of the officers and teachers of the ‘Indiana Institution for Educating the Deaf and Dumb,’ Rev. Thomas MacIntire, superintendent, in the chair, the following Resolutions, submitted as a tribute to the memory of the Rev. Collins Stone, Principal of the American Asylum for the Education of the Deaf and Dumb, were unanimously adopted:

“*Resolved*, That, in the death of the Rev. Collins Stone, the cause of deaf-mute instruction has sustained an almost irreparable loss; losing, as it has, in the midst of his usefulness, one, who, having at heart the best interests of the profession, by his zeal, ripe experience, and untiring industry, has so greatly promoted the welfare of the deaf mute.

“*Resolved*, That, while we so deeply mourn the loss of one from among the ranks of our common brotherhood, we feel even more deeply his loss as a Christian gentleman and personal friend; one, who, during his brief stay with us, as the presiding officer of the recent Convention of Instructors of Deaf Mutes, gained our highest esteem, and by his uniform courtesy and kindness won our hearts.

“*Resolved*, That, while we are sensible that no expressions of ours to the family and friends of the deceased can assuage their grief, our hearts go out to them in tenderest sympathy in the anguish of this, their sudden bereavement.

“*Resolved*, That a certified copy of these Resolutions be transmitted to the family of Mr. Stone, and also to the officers of the American Asylum for the Education of the Deaf and Dumb.”

THOMAS MACINTIRE, *Chairman*.

WM. H. LATHAM, *Secretary*.”

"At a stated meeting of the BOARD OF DIRECTORS OF THE PENNSYLVANIA INSTITUTION FOR THE DEAF AND DUMB, held on the 4th day of January, 1871, the Secretary announced the death of the Rev. Collins Stone, Principal of the American Asylum, and \* \* \* adverted to the friendly relations which had always existed between the American Asylum and this Institution, and paid a tribute to the virtues and services of the lamented dead.

"The following Resolutions were offered and unanimously adopted, viz.

"*Resolved*, That the Directors of the Pennsylvania Institution for the Deaf and Dumb are deeply affected by the sad and unexpected death of the Rev. Collins Stone, late Principal of the American Asylum for the Deaf and Dumb.

"*Resolved*, That, by the death of this excellent man and experienced and accomplished teacher, society has lost an exemplary citizen and the deaf and dumb an earnest and faithful friend.

"*Resolved*, That the Directors of the Pennsylvania Institution for the Deaf and Dumb tender to the American Asylum for the Deaf and Dumb and to the family of Mr. Stone, their sincere sympathy for the mournful bereavement they have sustained.

"*Resolved*, That the Secretary be instructed to transmit a copy of the foregoing Resolutions to the Directors of the American Asylum and to the family of the Rev. Mr. Stone.

"From the Minutes."

JAMES J. BARCLAY, *Secretary*."

## THE LATE REV. COLLINS STONE.

BY SAMUEL PORTER, M. A., WASHINGTON, D. C.

[From American Annals of the Deaf and Dumb, April, 1871.]

"On the 24th of December last, the community were shocked by the announcement in the morning papers all over the land, of the death, by a surprising and fearful accident, on the afternoon of the previous day, of the Rev. Collins Stone, Principal of the American Asylum for the Education of the Deaf and Dumb at Hartford.

"The particulars of this event are already well-known to most of the readers of the *Annals*. It was in accordance with his habits of hospitable attention to strangers, which was to him always a pleasure, that Mr. Stone had driven out, having in his company the Rev. Mr. Strong, of Faribault, Minn., in order to afford to that gentleman a view of the city and the suburbs. It was so ordered, by a singular concurrence of circumstances, that, contrary to his previous intention, the horse he had in hand was not the one he usually drove; and it was to a habit which this horse had of prancing as a prelude to going forward, when started after standing or stop-



ping, that the disastrous event is to be attributed. On the way homewards in Sigourney Street, as they neared the crossing of the railroad, the express train from the South came in sight, around the curve not far distant. Being in a covered vehicle, Mr. Stone reined up the horse and leaned forward for a sight of the train. It would appear that he decided to go on. But in starting, time was lost from the peculiar habit of the horse, and, the view being cut off by the carriage-top, the increased danger could not have been fully apprehended. One second more of time, or even a half-second, would have carried them clear. As it was, the carriage was struck, while the horse escaped unharmed. The two men were borne onward, along with the wreck of the vehicle, for some distance, by the *pilot*, or track-clearer, of the engine. The death of Mr. Stone was almost instantaneous, from a violent blow on the head. Mr. Strong escaped with severe bruises and one or two fractures, and now, as we write these lines, is happily convalescing, and, strange as it may seem, though really not unusual in such cases, with no recollection of the circumstances connected with the accident. As for Mr. Stone, it seemed good to his Heavenly Father, here and thus to bring his earthly life to a close, and to take him home to himself. The manner of his death, though distressing to surviving friends, was without pain to him. And, as was remarked by the Rev. Mr. Gould, in the funeral address, though death came to him unexpected, it found him not unprepared. There was the minor alleviation, for such a death, that the mortal remains were not so disfigured as to mar the natural appearance of the face and form as laid ready for the tomb.

"The news of this event shot a thrill of astonished grief through many hearts in widely distant parts of our land. He who was thus struck down was known, not only as the honored head of the oldest institution for deaf mutes in America, and as having formerly held a similar position in the one in Ohio, which now stands second in number of inmates, but at the time of his death he was the oldest member of the profession then in actual service in this country, reckoning age by number of years occupied in the work. He was thus well known to a large circle of acquaintances, and had been brought into intimate relations with many by whom his death would be sincerely and tenderly lamented. The readers of the *Annals* will miss his name as one of the Executive Committee in charge of the work, and they lose in him a zealous and efficient promoter of the interests of the publication.

"Though a mournful, it is not an unwilling office which we undertake,—except for the diffidence we feel of our ability to perform it aright,—that of endeavoring to fix in the memory of ourselves and others as distinct an image as we may of our departed friend; of what he was in character and of what he accomplished in his life; to record his example as one worthy to be honored and imitated; and to find what lessons it may furnish which we do well to lay to heart.



" Collins Stone was born in Guilford, Conn., September 7th, 1812; studied in preparation for college under Rev. Aaron Dutton, of Guilford, graduated at Yale College in 1832; and, after teaching school a few months in Orange, Conn., began his life-work as an educator of deaf mutes in 1833, in the American Asylum; was advanced to the office of Principal of the Ohio institution in 1852, which place he resigned for the like position in the American Asylum in 1863. He was married to Miss Ellen Jane Gill in 1839, who survives him, together with two sons and three daughters. The eldest of the sons has been already appointed to succeed his father as Principal at Hartford; and one of the daughters is the wife of Mr. Williams, an instructor in that institution. \* \* \* \*

" Tracing the career of Mr. Stone from his entrance upon active life,—we find him, first, conducting with marked efficiency and success the school which he taught for a few months after his college graduation. Then, as an instructor of the deaf and dumb, he was eminently successful in both the intellectual and the moral training of his pupils, and in getting their respect and affection. As Principal, in Ohio, he at once raised that institution to a higher footing of efficiency and prosperity. He did the best that could be done with accommodations which became too strait for the numbers demanding admission. Under his direction the plans were matured for the noble structure which has finally been erected; and that this consummation was not attained during his administration was through no fault on his part. The burden he had there to carry was, under the circumstances, a heavy one, but he bore it manfully and to successful issues. Soon after the Hartford Institution came under his charge as Principal, the circumstances connected with the effort to set up schools for deaf mutes in Massachusetts were such, for a long time, as to render his position a peculiarly trying and difficult one, and to call for the most wise and energetic management. Through these difficulties he was able to steer safely and happily; while, by his thoroughness in the internal administration, he carried forward the institution with an ever advancing step.

" During all these years, we find him active and useful, in various ways, outside of the sphere of professional duty:—first, as teacher and as superintendent of the Sunday-School connected with the Center Church in Hartford; then, in Ohio, as an active member of the church, and as one upon whom the pastor especially leaned; and finally, again in Hartford, as a deacon of the church and an active promoter of its interests. At all times and everywhere, his heart and his hand were ready and efficient in every good work for which a demand could properly be made upon him.

" The career of our friend was thus, in the highest and best sense, an eminently successful one. If we look for the secret of this success, we shall not find it in any pre-eminent natural endowments. He was not favored by nature with commanding power or attractive grace of bodily presence or of oral utterance. His powers of mind were not such as to qualify him

to distinguish himself by any thing original, profound, or brilliant. His intellect was marked mainly by plain, strong, practical sense; to which were added great power of concentration, great strength of will, and a temperament favorable to quickness of perception and promptness and alacrity in action,—making a combination highly favorable to executive efficiency: and the eagerness which ever impelled him forward was well balanced by an instinct of cautiousness which made him both prudent and vigilant. He had also, as a natural trait, that benevolent interest in others, and especially in the young and the dependent, which is essential to success as an educator.

“So far, nature had indeed fitted him for the work which he had to do. Yet, on the other hand, there were deficiencies, which were difficulties in the way, and in spite of which he succeeded as he did. In part or wholly as the effect, we presume, of the illness which went so hard with him in infancy, there was a want of pliability in the fingers and of ease and grace in bodily movement; and there was not much of that mobility of feature and power of facial expression, or much of that histrionic talent, which are requisite for the use of the sign language with the fullest effect. There was however, a wiry energy, and a spring and vivacity of movement, which in part made up for such defects. Yet, on the whole, we have, in his case, an instance which shows how small account should be made of mere physical adaptations, in choosing a teacher for the deaf and dumb, as compared with intellectual and moral qualifications:—however desirable in themselves, they dwindle almost to insignificance in the comparison.

“For the secret of the successful life we are reviewing, we must look deeper than merely to any combination of natural qualities. It is to be found only in that entire, conscientious and earnest devotion to duty, which was the ruling principle of action with our departed friend. It was thus that the five talents entrusted to him were made other five, and thus he attained to the reward of the good and faithful servant. Accepting the work which Providence had assigned him, his main aim and endeavor was to do this work thoroughly and well, doing it, however, not perfunctorily, but as a work in which his heart and soul were engaged. He had no by-ends or selfish aims to divert him from this work, and no ambitious strivings for anything above it. His care for his personal interests and those of his family never exceeded what duty itself would require. Here, indeed, as everywhere, his thoroughness and fidelity appeared; but, with him, private and domestic interests ever filled a place subordinate to the requirements of professional and public duty. Though exact and economical in pecuniary matters, he showed no solicitude about gaining, or accumulating property. It is true, indeed, that this devotion to duty was for him a sure road to advancement in his personal interests; but if an eye to these had been his ruling motive of action, such motive would surely have manifested itself in other ways than in simple fidelity to duty. No doubt, also,



he felt a satisfaction in the approval of those whose good opinion he valued ; but he was not of those who love the praise of men more than the praise of God :—the main-spring of his conduct ever appeared to be a conscientious and God-fearing devotion to duty. And in this way it was, we repeat, that he turned to so good account the abilities with which his Creator had endowed him.

“ This devotion to duty had, in him, its deep foundation in religion,—in a spirit of self-consecration to his Maker and Redeemer, in a faith which gave to spiritual realities their due predominance, and in humble and earnest prayer for divine aid and guidance. His boyish life, though unstained by immorality and baseness, would appear to have had no aim beyond the enjoyment of the passing hour. It could not have been free from reprovings of conscience at the time, as the neglected opportunities were afterward the subject of freely expressed regret. But when the change came, it was thorough and radical. His religion, though quite unostentatious, was genuinely honest and sincere. It took its character from the sound practical sense, the innate modesty, and the active working habits of the man. It was equally and wholly free from affected sanctimoniousness, from shallow, unmeaning cant, from cold formality, from indolent sentimentalism, or visionary mysticism, and from mere fervors of emotion. It lay unobtrusive, deep down in the roots of the character, and brought forth real, substantial fruit. \* \* \* \*

“ His devotion to duty was of the self-denying, self-sacrificing sort. He never consulted his own ease, or yielded to self-indulgence in any shape, to the neglect of duty. His pains-taking care was extended constantly and unweariedly to minute and irksome details. His labor did not stop short with the absolute requirements of duty, but was generously and freely given in whatever way he could promote the interests entrusted to him or those in which his services were voluntarily enlisted. As Principal, at Hartford, he voluntarily assumed cares and labors of domestic supervision and guardianship which had never been assigned to that office. This was unrewarded while he lived, and done with no expectation and no claim of pecuniary remuneration ; though, after his death, it was honorably and gratefully recognized by the Directors of the institution in an appropriation for the benefit of his family.

“ Not only was his unselfishness evinced, negatively, by the absence of self-seeking, but he had a goodness of heart which went forth in active kindness and generosity to others. He was not only most affectionate, kind and generous toward his kindred, and solicitous for the welfare of his pupils, but many who had no special claims upon him experienced kindness at his hands which could have sprung only from an uncommon benevolence of disposition. There were peculiarities which veiled, to the casual or the careless observer, his kindness and sympathetic tenderness of heart. His modesty made him utterly averse to effusive demonstrations of

feeling. His urgent, positive, persistent, peremptory nature gave to his manners at times a touch of roughness which might have been mistaken as indicative of an ungentle and unamiable temper. His strictness in discipline may possibly have sometimes been seen from so partial a point of view as to wear the look of harsh and unfeeling severity.

"His kindness was the direct opposite of that specious good nature which is merely an indolent, yielding compliance, or a superficial varnish of essential selfishness. As a disciplinarian, while he held the reins with a firm and steady hand, and was prompt in the use of a salutary severity as occasion required, he was ever kind and considerate, never capricious or unfeeling. He was a firm and constant friend, and if he had his personal aversions, they generally rested upon good grounds. No jealous or envious feelings were harbored by him. Though a hearty antagonist in a controversy, he was not at all of a contentious or quarrelsome temper. The better he was known, the more fully apparent was his genuine goodness of heart. Those who knew him in the intimate privacy of his own family, as was for some time the privilege of the writer of this imperfect tribute to his memory, can testify that within those revealing precincts, where only the true man shows to advantage and the selfish and base are unmasked, and where all flaws and stains are brought to light, he was seen to be, through and through, a genuine, kind-hearted, tender-hearted, large-hearted man.

"Modesty was a marked characteristic of Mr. Stone. He seemed to have, in an unusual degree, a just estimate of his own capabilities and his own performances. He certainly never over-estimated them, and his tendency was rather to self-disparagement than otherwise. Instead of being buoyed up and impelled forward by a conceit of his own superiority or a love of display, his diffidence was a repressing force which it required an effort of manful resolution to overcome. He never weakly shrunk from any duty for this reason; though, no doubt, a larger measure of self-confidence than he possessed would many times have been of essential advantage. He was in no degree elated by promotion, and never put on any lofty airs toward his subordinates or anybody else; and, with all his positiveness, he was never offensively dictatorial in manner. Though adhering very firmly to an opinion once formed, he was ever disposed to seek advice from those competent to give it. At the time when he was put in charge of the American Asylum, the old system of government by the faculty was, by the action of the Board of Directors, done away with, and the internal administration committed to the absolute control of the Principal; yet he did nevertheless consult his associates in such a way that, for a long time, none of them had any knowledge of the transfer of authority. There was, indeed, in this, something more of stratagem than was at all usual with him; but it proceeded simply from an unaffected modesty, and was in accordance with the reluctance which he had sincerely expressed to occupying a station over the heads of men as old or older than himself.



"It was characteristic of him in general to pursue his ends by efforts direct and open, and not by finesse or management. He could, indeed, at times, maintain a prudent reticence, and he saw well into the characters of those with whom he had to deal. Yet his way was to carry his point rather by energy of will than by tact or by indirection of any kind.

"His exceeding persistency was one of his most obvious and prominent traits. His instinctive impulse was to insist and adhere, and not to yield to opposition. But this was counterbalanced by his strong sense and his essentially modest and candid temper of mind. But for this rectifying and controlling under-current, the trait to which we refer might have made him disagreeable as a companion, and wrong-headed and impracticable in affairs. If his persistency ever seemed excessive and unreasonable, it was more so in appearance and on the surface than in determining his actual conduct in affairs of importance.

"This trait, together with his cautious temper and his matter-of-fact common-sense, would incline him to a safe conservatism, as opposed to a hasty innovation. He was not the man to be captivated by any visionary scheme, or tempted into venturing upon untried novelties. Yet he was ready to welcome any plainly demonstrated improvements; and he was not of those who cling to the old, because it is old, with a blind and overweening attachment.                   \*                   \*                   \*                   \*                   \*

"Mr. Stone was altogether a man made for action, propense by nature to energetic activity, rather than to contemplation or to study for its own sake, or to the cultivation of the esthetic faculties. His study and reading, after he entered upon his professional life, was mostly done as preparatory to some active duty; and for such ends was faithfully done. The esthetic nature was developed in him as the product of well-balanced intellectual and moral faculties, and of a love of thoroughness and order, rather than from any special proclivity or any direct culture.

"Mr. Stone was happy in having naturally a cheerful disposition. He delighted to unbend in sprightly social converse. His laugh was a hearty one. He never lost his relish for the sports in which during his boyhood he had engaged with so keen a zest as to divert him too much at that time from serious occupation. He enjoyed especially those games, whether active or sedentary, in which there is a competition in alertness and dexterity and energetic effort. He was skillful at the royal game of chess, and sat down to it for an occasional season of recreation even in the later years of his life. For his ordinary recreation, a good horse was what he most of all preferred; and few are more expert than he was in the control of a spirited animal, either in harness or under the saddle. There was no person with whom, on a drive, we would have felt more entirely safe with the reins in his hands. As to the manner of his death we cannot cease to wonder, or to suspect that there must have been circumstances connected with the accident, which never have been, and never can be, brought to light.

"As a preacher in the pulpit, the natural defects already mentioned detracted from effectiveness in delivery; his modesty made him reluctant to be put forward, even occasionally, into any prominent position as a preacher; and, during the greater part of the time while he was Principal at Hartford, it was his custom, with occasional exceptions, to conduct the religious services in the chapel of the institution in the afternoon of every Sunday, thus leaving him seldom at liberty for any other preaching. He received ordination after his removal to Columbus, and while there he ministered frequently for feeble parishes in the neighborhood, but was seldom induced to enter the pulpit in the churches of the city, unless to supply an occasional vacancy, evincing in this both his modesty and his benevolence. Had he taken the ministry of the gospel for his exclusive vocation, we can hardly doubt that, with his sterling qualities of heart and intellect and his energy applied to the overcoming of his defects of oratorical delivery, he would, in that sphere, have been eminently useful and successful.

"As a writer, though Mr. Stone had no large opportunities for cultivation in the way of practice, the readers of the *Annals* do not need to be told that his productions are marked by vigor and orderly sequence of thought, and by correctness of taste, clearness, aptness and force of expression and harmony of structure. That, upon a suitable occasion, he could write in a style of finished and impressive eloquence, was made evident in the address delivered at the Ohio Institution in February, 1869, and published in the *Annals* for April of that year.

"This record of the life of our friend would be incomplete without some reference to a severe domestic affliction which fell to his lot when in Ohio. A daughter, in the fresh bloom of childhood, who had already developed a character of rare loveliness and unusual promise, was accidentally and fatally hurt by the revolving beam of a horse-power with which she and her playmates were amusing themselves, and, after a few hours of suffering, closed her eyes in death. The loss was hard to bear, and under such circumstances was peculiarly distressing, but was endured with the resignation and fortitude of a devout Christian and a trusting believer. Two years later, another daughter, at the age of six years, fell a victim to typhoid fever.                   \*                   \*                   \*                   \*

"It is but a short time since many of us who were his fellow-workers in the education of the deaf and dumb, were present with Mr. Stone in the convention at Indianapolis, where he won unanimous approbation and added to the esteem with which he had before been regarded, by the dignity and urbanity, and, we may add, the modesty, with which he discharged the duties of his position as President of the convention. His few, simple, heartfelt words at the close of the proceedings were characteristic of the man.

"Though the end of his life came suddenly, and before his capacity for active service was sensibly abated, yet he had filled up the full measure of



the work of a life-time. His active disposition and habits might have made rest on earth uncongenial, had his life been prolonged. He has found his rest in another world. *Rest* we call it; and so it is to be regarded, viewing it as a release from the burdens, the vexations and trials which weigh upon the happiest of human activities; but otherwise we are to regard it as a promotion to a higher and nobler sphere of action, of wholly cheerful and joyous activity,—the reward of him who on earth proves himself, as did our departed friend, a *good and faithful servant*.”

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At a special meeting of the Directors of the American Asylum, at Hartford, for the Education and Instruction of the Deaf and Dumb, at their office, March 30th, 1871, convened upon the announcement of the death of Barzillai Hudson, Esq., one of the original corporators of this Society, and for many years a Vice President and Director and Chairman of its Directing Committee, the following Resolutions were passed:

“*Resolved*, That we gratefully acknowledge the valuable services which our late associate and friend, Barzillai Hudson, Esq., has rendered to this Institution during the long period in which he has been one of its active and prominent executive officers.

“His faithful and untiring labors were incited by a sincere love for the cause of deaf-mute education, and were the result of a steady and earnest purpose, based upon christian principle, to help the unfortunate.

“While we mourn the loss of one whose name had become almost identified with this Society, we rejoice that he was permitted to labor for so long a time in its behalf with unabated zeal, and gladly remember that increasing cares and years and, at the last, even physical infirmity, did not diminish his interest in its welfare.

“*Resolved*, That, as a token of respect for his memory, we will attend his funeral in a body, and that the Clerk be requested to transmit a copy of these Resolutions to the family of Mr. Hudson, and that they be printed in the daily papers of the city.

J. C. PARSONS, *Clerk*.”

# REPORT OF THE PRINCIPAL.

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TO THE BOARD OF DIRECTORS:

*Gentlemen*:—In presenting the customary Annual Report of the Asylum, we acknowledge, with gratitude to God, the kind Providence that has watched over it during another year,—the fifty-fifth in its history. The great objects for which it was established have been steadily and successfully pursued; the behavior and improvement of the pupils have been gratifying; and the internal affairs have gone on smoothly and harmoniously. The number of pupils in attendance is nineteen greater than last year, and is larger at present than ever before. The statistics are as follows:

Number present at date of the last Report,	247
New pupils admitted during the year . . .	43
Former pupils re-admitted, . . . . .	8
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Entire number under instruction, . . . . .	298
Dismissed during the year, . . . . .	39
Number now present, . . . . .	262
Average attendance during the year, . . . . .	255

No cases of severe sickness have occurred, and no epidemic or contagious diseases have prevailed. The usual sanitary precautions have been successfully employed, and the general health of the household has never been better.

In the department of labor, the trades have been taught with satisfactory results in the increased skill and progress of the pupils engaged. Forty boys have been instructed in the cabinet



shop ; thirty-eight in the shoeshop ; and thirty-five boys and four girls in the tailors' shop. Although the latter is mostly filled with boys too small to enter the other shops, and the average time of remaining there is but two years, a large quantity of clothing is made, in a substantial manner. The cabinet-making and shoe-making trades are well-suited to the deaf and dumb, as is abundantly proved by experience. Pupils are leaving every year, who are able at once to command fair wages, and in almost every large town can be found graduates of the Asylum, gaining a good livelihood through the knowledge obtained in the shops while here attending school.

In the intellectual department, the results attained are believed to be fully equal to those of former years ; and, although the progress is often slow, and the labor of instruction arduous and perplexing, the difficulties imposed upon our pupils by their misfortune, are gradually overcome, and we see them going out with their minds cultivated and enlightened by truth, restored to society, and fitted to be a blessing to their friends and to reflect honor upon the Institution. Thirty-nine pupils left at the close of the last term, three of whom are pursuing their studies further at the National Deaf-Mute College, at Washington. The two hundred and sixty-two pupils now under instruction are divided into fourteen classes, two of which are composed of new pupils who entered last fall. The class in articulation has been continued as it was organized the previous year. Instruction in lip-reading and speaking, as an art, rather than as a means of imparting knowledge, has been given to those most likely to profit by it for a portion of each day, while their education has been carried on by means of the sign language in their regular classes. Thirty-five pupils have been so taught during the year ; several have been dropped as unpromising subjects ; and at present the class consists of twenty-two, most of whom are semi-mutes. The improvement made in this branch of instruction is commendable.

The year has been marked by various changes among the officers of the Asylum. Miss Sarah W. Storrs, after fifteen years of faithful and efficient labor, resigned her position in June, constrained by duty to her aged parents. Miss Clara E. Seaverns

left at the same time to engage in domestic relations; and Miss Caroline Sweet has taken an ordinary class, and is succeeded in the department of articulation by her sister, Miss Julia Sweet. Miss Elmira D. Clapp, a recent graduate of the Asylum, and Miss Kate C. Camp, a daughter of Mr. Henry Camp, so long connected with it, were appointed in September. With the present efficient corps of instructors, the best of results are to be expected.

The sad and terrible accident, on the 23d of December, which so suddenly removed the beloved and honored head of the Institution, the Rev. Collins Stone, deprived it of a most valuable officer and brought a cloud of sadness upon all the inmates. For a period of seven weeks the Institution was without a Principal, during which time, by your direction, most of the duties of the position were performed by Mr. Williams, and with the co-operation of the other instructors and officers, the former discipline and efficiency were maintained. The present incumbent assumed the duties of his office on the 15th of February.

The death during the year, of another, long identified with deaf-mute education, deserves to be placed upon record. Mr. Abraham B. Hutton, for forty years Principal of the Pennsylvania Institution, died on the 18th of July last. His term of active service of more than forty-eight years exceeds that of any other American-born teacher of deaf mutes. He entered the Institution at Philadelphia in 1822, and took his first lessons from Mr. Clerc. Mr. Weld was at that time Principal, and upon his going to Hartford, eight years later, Mr. Hutton was appointed his successor, which position he filled with great fidelity and success until his death. He was a man of scientific attainments and of such artistic talents as would have made him celebrated in other callings. As a teacher, he was distinguished for his skill in pantomime and for his kindness of heart and gentleness of manner, which gained for him universal love and respect. His patient and unassuming service of christian philanthropy will long retain a grateful place in the memory of all who knew him.

The Seventh Convention of American Instructors of the Deaf and Dumb was held in Indianapolis in August last, and was presided over by Rev. Collins Stone. A number of the other offi-



cers of the Asylum were present, and the attendance was large from other institutions. Various able papers bearing upon deaf-mute instruction were read, and were followed by extended discussions. The Convention was one of great interest; and its proceedings, which are published, cannot fail to be of decided and permanent value. These gatherings were commenced twenty years ago, the second being held at Hartford in 1851. The next Convention will be held in 1873, but the place of meeting is not yet determined.

Within the past year, the subject of day-schools for the deaf and dumb, where the children board at home and are taught for four or five hours a day, as other children are, has received some attention in this country, and schools of this kind have been opened at Pittsburg, Boston and Chicago. They must of necessity be confined to the vicinity of large cities, and are not practicable elsewhere. The early instruction of mute children is very desirable, and the philanthropy which searches our great cities, where most of them are found among the poorest and lowest classes, and which seeks to elevate them, deserves our highest commendation. Still, while the influence of a well-ordered home is so happy, the disadvantages of one that is not are so great, that our large institutions, caring for the physical, intellectual and moral welfare of their pupils, in every way, and all the time, and also providing instruction in the trades, would seem to be better adapted to the needs of these neglected ones than day-schools can be. Much good can undoubtedly be accomplished in the day-schools before the child is old enough to be sent away from home, and the results of these benevolent enterprises will be looked for with great interest.

The growth and progress of institutions for the deaf and dumb, since the establishment of the American Asylum, in 1817, is worthy of note. At that time, it was believed that one school would answer for the whole country, as the name indicates; but now there exist, in the United States, thirty-four institutions containing three thousand seven hundred and eighty-four pupils and two hundred and twenty-two teachers, and which are accomplishing an amount of good that is incalculable. The art of instructing the deaf has been gradually developed and perfected;

its importance is continually increasing; and the attention and investigations of the best scholars and educators have been and will continue to be engaged upon it.

Our acknowledgments are due to David Clark, Esq., for a repetition of his former generosity, in the gift of a barrel of fine oranges to our pupils.

With fresh gratitude to God for his past goodness, and relying upon his help for the future, we commit this important institution with all its interests to his keeping for another year.

Respectfully submitted,

EDWARD C. STONE, *Principal.*

AMERICAN ASYLUM, April 28th, 1871.



# APPENDIX.

## I.

DR. American Asylum in Account with Roland Mather, Treasurer. CR.

1871. April 1.		1870. April 1. 1871.	
To Cash paid Orders of Directing Committee, in favor of H. Kennedy, Steward, the year past,	\$30,500 00	By Balance from old Account	\$812 69
To Cash for Salaries, - - - - -	25,630 00	By Rent of Dwellings, - - - - -	575.00
To Cash favor Mrs. L. Clerc, - - - - -	500.00	By Income from the Fund, the year, - - - - -	21,488 95
To Cash favor Mrs. C. Stone, for extra services of Rev. Collins Stone, late Principal, 8 years, - - - - -	4,000 00	By Receipts from the six New England States for support of Beneficiaries for the year, - - - - -	41,777 00
Cash paid Insurance, - - - - -	581 92	By Receipts from Paying Pupils, - - - - -	2,072 50
Cash paid Sundry Expenses, - - - - -	'966 81	By Collections,—“Fund Account,” - - - - -	18,885 00
Investments, “Fund Account,” - - - - -	23,500 00	By Received in trust from estate of A. Blodget, By 1 year Interest on Blodget Fund for State of Connecticut, - - - - -	373 61
	<hr/>	By Over-Drafts, Hartford National Bank, - - - - -	141 00
	\$85,678 73		152 98
			<hr/>
			\$85,678 73

Examined and found correct. We have also this day examined the vouchers for the securities owned by the American Asylum, as per inventory of the Treasurer, and find them to agree with the same.

[Signed] JONA. B. BUNCE, }  
F. B. COOLEY, } Auditors.  
HARTFORD, April 26, 1871.

## II. STATEMENT

### OF THE FUND OF THE AMERICAN ASYLUM.

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Invested in National Bank Stocks in Connecticut,		\$69,100.00
“ on Bond and Mortgage of Real Estate,	-	143,550.00
“ in Railroad Bonds, - - - -	-	23,900.00
Real Estate in Hartford, - - - -	-	86,522.88
Movable Estate, (Furniture in the Institution,) -		5,390.00
		<hr/>
		\$328,462.88
Deduct Blodget Fund, - - -	\$2,491.00	
“ Over Draft, - - -	152.98	2,643.98
		<hr/>
	Amount of Fund,	\$325,818.90
HARTFORD, April 1, 1871.		

## III. ABSTRACT OF CURRENT EXPENSES

DR. *American Asylum in Account with*

To Flour, - - - - -	\$2,468.75
" Meal, - - - - -	15.52
" Crackers, - - - - -	23.31
" Rice and Corn Starch, - - - - -	60.55
" Yeast, - - - - -	204.00
" Hay and Straw, - - - - -	547.86
" Provender and Oats, - - - - -	993.71
" Live Stock, - - - - -	19.00
" Tools and Blacksmithing, - - - - -	190.68
" Butter, - - - - -	3,665.41
" Charcoal, - - - - -	448.95
" Hard Coal, - - - - -	2,418.89
" Wood, - - - - -	93.30
" Furniture, - - - - -	1,520.42
" Groceries, - - - - -	2,284.61
" Light and Gas Bill, - - - - -	878.62
" Meat, Fish and Fowl, - - - - -	5,140.72
" Medicine, - - - - -	45.87
" Miscellaneous, - - - - -	1,006.67
" Pupils, - - - - -	1,134.17
" Repairs and Improvements, - - - - -	4,639.91
" Schools and Postage, - - - - -	294.67
" Cabinet Shop, - - - - -	1,381.23
" Shoe Shop, - - - - -	232.85
" Vegetables and Fruits, - - - - -	1,329.65
" Wages, - - - - -	3,808.60
" Washing and Soap, - - - - -	690.83
" Water Works, - - - - -	305.70
	<hr/>
	37,394.34
To Balance to Cr. New Year, - - - - -	176.18
	<hr/>
	\$37,570.52

## FOR YEAR ENDING APRIL 1ST, 1871.

*Henry Kennedy, Steward.*

CR.

Balance from last Account,	-	-	-	-	\$703.03
By Cash from Treasurer,	-	-	-	-	30,500.00
“ “ “ Cabinet Shop,	-	-	-	-	352.55
“ “ “ Shoe “	-	-	-	-	213.01
“ “ “ Tailor's “	-	-	-	-	15.19
“ “ “ Pupils,	-	-	-	-	1,605.15
“ “ Rec'd for Rent,	-	-	-	-	75.00
“ “ from Collins Stone,	-	-	-	-	222.02
“ “ “ “ Estate,	-	-	-	-	92.93
“ “ Rec'd from Rail Road Fares,	-	-	-	-	13.33
“ “ “ for Potatoes,	-	-	-	-	71.25
“ “ “ “ Difference in Oxen,	-	-	-	-	99.38
“ “ “ “ Hogs,	-	-	-	-	109.52
“ “ “ “ Barrels,	-	-	-	-	46.50
“ “ “ “ Flag Stone,	-	-	-	-	12.60
“ “ “ “ Butter,	-	-	-	-	12.78
“ “ “ “ Labor,	-	-	-	-	2.50
“ “ “ “ Water Rent,	-	-	-	-	2.50
“ “ “ from Bowling Club,	-	-	-	-	35.00
“ “ “ for Cider,	-	-	-	-	6.50
“ “ “ from Hfd. and N. H. R. R. Co.,	-	-	-	-	193.00
“ “ “ “ State of Maine,	-	-	-	-	810.50
“ “ “ “ “ Massachusetts,	-	-	-	-	844.41
“ “ “ “ “ Rhode Island,	-	-	-	-	38.21
“ “ “ “ “ Vermont,	-	-	-	-	82.75
“ “ “ “ “ Connecticut,	-	-	-	-	245.56
“ “ from Miscellaneous Sources,	-	-	-	-	1,165.35
					<hr/>
					\$37,570.52

HENRY KENNEDY, *Steward.*



## IV. PAPERS, PERIODICALS, &c.

THE FOLLOWING PAPERS HAVE BEEN SENT TO THE PUPILS GRATUITOUSLY DURING  
THE PAST YEAR.

Name.	Editors and Publishers.	Where Published.
Anamosa Eureka,	Weekly, Edmund Booth & Son,	Anamosa, Iowa.
Barre Gazette,	" Henry Godard,	Barre, Mass.
Boston Courier,	" George Lunt & Co.,	Boston, Mass.
Boston Transcript,	" Henry W. Dutton & Son,	" "
Canaan Reporter,	" C. O. Barry,	East Canaan, N. H.
Christian Mirror,	" Charles A. Lord,	Portland, Me.
Christian Secretary,	" E. Cushman,	Hartford, Conn.
Churchman,	" H. H. Mallory & Co.,	" "
Columbian Register,	" Osborn & Co.,	New Haven, Conn.
Commonwealth,	" Charles W. Slack,	Boston, Mass.
Congregationalist,	" W. L. Greene & Co.,	" "
Connecticut Courant,	" Hawley, Goodrich & Co.,	Hartford, Conn.
Deaf-Mute Advance,	Monthly, Institute for Deaf and Dumb,	Jacksonville, Ill.
Deaf-Mute Casket,	" W. J. Palmer,	Raleigh, N. C.
Deaf-Mute Home Circle,	" W. M. French,	Omaha, Neb.
Eastern Argus,	Weekly, John M. Adams & Co.,	Portland, Me.
Exeter News Letter,	" Marseilles & Charles,	Exeter, N. H.
Hartford Courant,	Daily, Hawley, Goodrich & Co.,	Hartford, Conn.
Hartford Post,	" Sperry, Hall & Co.,	" "
Hartford Times,	" Burr Brothers,	" "
Independent Democrat,	Weekly, Independent Press Association,	Concord, N. H.
Kennebec Journal,	" Sprague, Owen & Nash,	Augusta, Me.
Lake Village Times,	" Stanton & Haynes,	Lake Village, N. H.
Maine Farmer,	" Homan & Boardman,	Augusta, Me.
Massachusetts Spy,	" J. D. Baldwin & Co.,	Worcester, Mass.
Mutes' Chronicle,	" Inst. for Deaf and Dumb,	Columbus, Ohio.
National Opinion,	" D. W. Cobb,	Bradford, Vt.
New Hampshire Patriot and Gazette,	" Butterfield & Hill,	Concord, N. H.
New Hampshire Statesman,	" McFarland & Jencks,	" "
New Haven Palladium,	" A. L. Train,	New Haven, Conn.
New London Democrat,	" Ruddock & Tibbits,	New London, Conn.
New York Evangelist,	" Henry W. Field,	New York City.
New York Spectator,	" "	" "
Our Dumb Animals,	Semi-Weekly,	Boston, Mass.
Portland Transcript,	Weekly,	Portland, Me.
Providence Journal,	" Knowles, Anthony & Danielson,	Providence, R. I.
Religious Herald,	" D. B. Mosely,	Hartford, Conn.
Republican Standard,	" John D. Candee,	Bridgeport, Conn.
Rhode Island Press,	" Providence Press Co.,	Providence, R. I.
The People,	" Charles C. Pearson & Co.,	Concord, N. H.
Vermont Christian Messenger,	" Willard & Wheelock,	Montpelier, Vt.
Vermont Watchman and State Journal,	" J. & J. M. Pollard,	" "
Vineyard Gazette,	" Charles M. Vincent,	Edgartown, Mass.
Villager,	" W. H. B. Currier,	Amesbury and Salisbury Mills, Mass.
Watchman and Reflector,	" J. W. Olmsted & Co.,	Boston, Mass.
Waterbury American,	" American Printing Co.,	Waterbury, Conn.
Worcester Palladium,	" J. S. C. Knowlton,	Worcester, Mass.
Zion's Herald,	" Haven & Weed,	Boston, Mass.

## V.

## LIST OF PUPILS

IN THE SCHOOL, WITHIN THE YEAR ENDING ON THE 1ST OF MAY, 1871.

## MALES.

Name.	Residence.	Admission.
Abbot, John W.....	Sidney, Me.,.....	Sept., 1865
Acheson, Charles.....	West Randolph, Mass.,....	Sept., 1864
Acheson, George W. ....	West Randolph, Mass.,....	Sept., 1864
Acheson, Robert.....	West Randolph, Mass., ...	Sept., 1869
Aldrich, Erwin E.....	Smithfield, R. I.,.....	Sept., 1864
Anderson, Wallace E.....	South Framingham, Mass.,..	Sept., 1867
Bailey, Arthur E.....	Poland, Maine,.....	Sept., 1866
Baker, Jesse H.....	Manchester, N. H.,.....	Sept., 1867
Baldwin, Charles F.. ....	Litchfield, Conn.,.....	Sept., 1864
Barrett, William S.....	Plymouth, Mass.,.....	Sept., 1865
Bass, Charles.....	Chicopee, Mass.,.....	Sept., 1869
Bastinella, Oliver.....	Pittsfield, Mass., ....	Sept., 1865
Beach, Isaac P.....	Branford, Conn.,.....	Sept., 1869
Beauregard, Peter.....	North Adams, Mass.,.....	Sept., 1868
Benjamin, Thomas F.....	Williamstown, Mass.,.....	Sept., 1869
Bigelow, Frank P.....	St. Johnsbury, Vt.,.....	Oct., 1868
Blodget, Frank P.....	Nashua, N. H.,.....	Sept., 1867
*Bond, Thomas S.....	Hartford, Conn.,.....	Sept., 1860
Bonner, James.....	Hartford, Conn.,.....	Sept., 1870
Bowler, Albert O.....	Rockland, Me.,.....	Sept., 1867
Brown, Alpheus E.....	East Canaan, N. H.,.....	Sept., 1867
Burbee, Joseph M.....	Bondville, Vt.,.....	Oct., 1870
Burbee, Ransom T.....	Bondville, Vt.,.....	Oct., 1870
Burbee, Frederick.....	Bondville, Vt.,.....	Oct., 1870
Burnham, Harry C.....	Gardiner, Maine, ....	Sept., 1869
Butcher, William L.....	Ansonia, Conn.,.....	Sept., 1868
Butler, John.....	Brookline, Mass.,.....	Sept., 1863
Cain, Cornelius.....	Lewiston, Maine,.....	Sept., 1867
Callender, Arthur E.....	Cambridgeport, Mass.,....	Sept., 1869
Carlisle, Albert L.....	Surry, Maine,.....	Sept., 1869
Carter, William T.....	Boston, Mass.,.....	Oct., 1866
Chapman, Albert W.....	Cambridgeport, Mass.,....	Sept., 1865

Name.	Residence.	Admission.
Clark, Frank H.....	Easthampton, Mass.,.....	Sept., 1867
Clark, John.....	Monson, Mass.,.....	Sept., 1865
Collins, John.....	East Avon, Conn.,.....	Dec., 1868
*Comey, Joseph H.....	Foxboro, Mass.,.....	Sept., 1868
Conners, John J.....	Mansfield, Mass.,.....	Sept., 1865
Cook, Thomas.....	Portland, Maine,.....	Sept., 1865
Crane, John E.....	Whiting, Maine,.....	Sept., 1868
Crane, Michael.....	Milford, Mass.,.....	Sept., 1870
Crocker, David P.....	Barnstable, Mass.,.....	Sept., 1869
*Cross, Samuel S.....	Beverly, Mass.,.....	Sept., 1864
Culver, Samuel L.....	Waterville, Conn.,.....	Sept., 1866
Cummings, Daniel.....	Greenville, Conn.,.....	Sept., 1864
Cummings, John.....	Somerville, Mass.,.....	Sept., 1870
Cutter, George F.....	Irasburgh, Vt.,.....	Sept., 1865
*Daniels, Orson.....	North Adams, Mass.,.....	Sept., 1867
*Davis, Edwin A.....	Auburn, Maine,.....	Sept., 1867
Dolan, James.....	Providence, R. I.,.....	Sept., 1870
Dougherty, Charles.....	Hartford, Conn.,.....	Sept., 1863
Drew, Frank H.....	Boston, Mass.,.....	Sept., 1865
Duran, Edward.....	South Boston, Mass.,.....	Sept., 1865
Dyke, Samuel J.....	Northfield, Vt.,.....	Dec., 1869
*Ellis, Manford.....	Belgrade, Maine,.....	Sept., 1864
Ensly, Christian.....	Southington, Conn.,.....	Sept., 1870
Erbe, Herman.....	Southington, Conn.,.....	Sept., 1865
Estabrook, Endor E.....	Assabet, Mass.,.....	Sept., 1870
Fahy, Daniel.....	New Haven, Conn.,.....	Sept., 1868
Fahy, Thomas.....	Pittsfield, Mass.,.....	Sept., 1862
Farley, James.....	Lowell, Mass.,.....	Sept., 1868
Farnham, Charles.....	Hodgdon's Mills, Maine,...	Sept., 1870
Fish, Charles.....	Danby, Vt.,.....	Sept., 1865
Fisher, Charles.....	Francistown, N. H.,.....	Sept., 1869
*Flagg, Franklin.....	Belfast, Maine,.....	Sept., 1869
Fleming, David.....	Barre, Mass.,.....	Sept., 1869
Folsom, Charles F.....	West Waterville, Maine,...	Oct., 1868
Freallick, James F.....	Provincetown, Mass.,.....	Sept., 1865
Frisbee, Edward.....	Charlestown, Mass.,.....	Sept., 1866
Gambol, John.....	South Boston, Mass.,.....	Oct., 1864
Gerry, Alexander W.....	Charlestown, Mass.,.....	Sept., 1868



Name.	Residence.	Admission.
Gardner, William M.....	Hardwick, Mass.,.....	Sept., 1864
Gay, Elon R.....	Nashua, N. H.,.....	Sept., 1870
Glidden, John F.....	Rochester, N. H.,.....	Sept., 1870
Graham, Samuel.....	Newark, N. J.,.....	Sept., 1866
Hargrave, Albert C.....	East Boston, Mass.,.....	Sept., 1867
Hawley, Emory A.....	Leverett, Mass.,.....	Sept., 1869
Hawley, Levi R.....	Leverett, Mass.,.....	Sept., 1865
*Hawley, Lewis N.....	L...everett, Mass.,.....	Sept., 1865
Hayden, Othello D.....	Stoughton, Mass.,.....	Sept., 1863
*Helfpenny, Martin.....	Waterbury, Conn.,.....	Sept., 1864
Holt, George.....	Lewiston, Maine,.....	Sept., 1869
Ingram, Herbert O.....	Williamsville, Vt.,.....	Sept., 1869
Jellison, Simon.....	Monroe, Maine,.....	Sept., 1865
Jellison, Henry A.....	Lynn, Mass.,.....	Oct., 1870
Josselyn, Andrew P.....	East Foxboro, Mass.,.....	Sept., 1863
Kellaher, Timothy.....	Sandwich, Mass.,.....	Sept., 1869
Kendall, Phillip.....	South Windsor, Maine,....	Sept., 1865
*King, James H.....	Middletown Point, N. J.,..	Sept., 1865
Kinney, Edson L.....	Houlton, Maine,.....	Sept., 1868
Knapping, Charles E.....	Brooklyn, Conn.,.....	Sept., 1870
Knight, Charles E.....	West Boylston, Mass.,....	Sept., 1868
Koch, William.....	Collinsville, Conn.,.....	Sept., 1868
Ladd, Amos A.....	East Haddam, Conn., ....	Sept., 1866
*Ladue, Edward.....	Georgia, Vt.,.....	Sept., 1864
*Leary, Matthew.....	Boston, Mass.,.....	Sept., 1863
Littlefield, Frederick M.....	Kennebunk, Maine,.....	Sept., 1868
Lucy, John B.....	Haverhill, Mass.,.....	Sept., 1868
Lurvey, Charles W.....	Gloucester, Mass.,.....	Sept., 1868
Mackintosh, George.....	Canton, Mass.,.....	Sept., 1864
Marr, Ira.....	North Washington, Me.,...	Sept., 1867
Marr, Hiram A.....	North Washington, Me.,...	Sept., 1870
*Marston, Westley N.....	Greenland, N. H.,.....	Sept., 1864
Martin, Charles H.....	Salem, Mass.,.....	Sept., 1863
Mayberry, Howard H.....	Otisfield, Maine,.....	Nov., 1870
*Mayo, Harves.....	Monroe, Maine,.....	Sept., 1865
McCarty, John.....	Andover, Mass.,.....	Sept., 1865
McCue, John H.....	New Haven, Conn.,.....	Sept., 1870
McDonell, John.....	West Stockbridge, Mass.,...	Sept., 1865



Name.	Residence.	Admission.
McGinn, John.....	North Providence, R. I.,..	Nov., 1870
*McGirr, Francis.....	East Cambridge, Mass.,....	Sept., 1863
McKinney, William J.....	Alleghany City, Penn.,....	Sept., 1865
McMaster, Hugh H. B.....	Pittsburgh, Penn.,.....	Sept., 1864
McMechen, James H.....	Wheeling, West Virginia,..	Aug., 1865
McWilliams, George A.....	Fall River, Mass.,.....	Sept., 1870
Meacham, George.....	Chester, Mass.,.....	Sept., 1868
Meagher, Michael.....	Waterbury, Conn.,.....	Sept., 1865
Merriweather, Titus.....	Hartford, Conn.,.....	Sept., 1868
Mitchell, Isaac.....	New Haven, Vt.,.....	Sept., 1867
*Mosely, Joseph A.....	Pomfret, Conn.,.....	Sept., 1862
Moulton, Thomas.....	Buxton Center, Maine,....	Sept., 1864
Muth, John.....	Hartford, Conn.,.....	Sept., 1865
*Nelson, James.....	Lowell, Mass.,.....	Sept., 1864
*O'Harra, John.....	Milford, Mass.,.....	Sept., 1860
O'Keefe, John.....	New Haven, Conn.,.....	Sept., 1868
O'Neil, John.....	Thorndike, Mass.,.....	Sept., 1867
O'Neil, Michael.....	Springfield, Mass.,.....	Sept., 1866
O'Neil, William.....	Rockville, Conn.,.....	Sept., 1869
Owen, Abel B.....	Deering, N. H.,.....	Sept., 1870
*Page, Roscoe G.....	Augusta, Maine,.....	Sept., 1860
Parsons, Robert N.....	Hazardville, Conn.,.....	Sept., 1869
Pattee, Wilbur D.....	Alexandria, N. H.....	Sept., 1867
Patterson, Charles.....	Saco, Maine,.....	Sept., 1864
Paul, John E.....	Cambridgeport, Mass.,....	Sept., 1867
Perry, James W.....	Milton, Mass.,.....	Sept., 1868
*Pick, William C.....	Providence, R. I.,.....	April, 1863
Powers, James.....	Boston, Mass.,.....	Sept., 1865
Price, John F.....	Keene, N. H.,.....	Oct., 1869
Quincy, Josiah.....	Monson, Mass.,.....	Sept., 1865
Richmond, Ephraim H.....	Voluntown, Conn.,.....	Sept., 1865
Roberts, Frank B.....	Boston, Mass.,.....	Sept., 1866
Rock, Edward W.....	Hartford, Conn.,.....	Sept., 1870
Rudolph, William.....	Boston, Mass.,.....	Sept., 1866
Sawyer, Charles J.....	West Buxton, Maine,....	Sept., 1870
Seaman, Mortimer W.....	Bridgeport, Conn.,.....	Sept., 1866
Seiders, David M.....	Waldoboro, Maine,.....	Sept., 1868
*Scoles, William M.....	Augusta, Maine,.....	Sept., 1863

Name.	Residence.	Admission.
Shaler, Joseph.....	Palmer, Mass.,.....	Sept., 1869
Shippee, John H.....	North Foster, R. I.,.....	Sept., 1870
Simpson, George A.....	Hartford, Conn.,.....	Sept., 1868
Skelly, Edwin J.....	Rochester, N. H.,.....	Sept., 1867
Skillin, Henry H.....	Portland, Maine,.....	Sept., 1869
Skillin, Frank E.....	Portland, Maine,.....	Sept., 1869
Small, George B.....	Hartland, Vt.,.....	Sept., 1865
Smith, Orlando A.....	Roxbury, Mass.,.....	Sept., 1863
Soper, Joseph W.....	Lowell, Mass.,.....	Sept., 1868
Sparrow, Wilbur N.....	Eastham, Mass.,.....	Sept., 1864
Spencer, Edwin Lee.....	Seymour, Conn.,.....	Sept., 1870
Staples, Ebenezer E.....	Taunton, Mass.,.....	Sept., 1868
Starrett, Elias A.....	Burnham, Maine,.....	Nov., 1868
Stevens, William.....	Stonington, Conn.,.....	Sept., 1867
Stillman, Henry D.....	Cumberland Hill, R. I., ...	Sept., 1870
Streeter, Frank.....	Northfield, Mass.,.....	Sept., 1869
Strout, George E.....	Bangor, Maine,.....	Sept., 1870
Tufts, Samuel A.....	Malden, Mass.....	Sept., 1865
Twambly, John A.....	Kenduskeag, Me.,.....	Sept., 1870
Verry, Walter S.....	East Greenwich, R. I.,....	Sept., 1868
Walker, Freddy.....	Norwich, Conn.,.....	Sept., 1864
Wardman, Samuel.....	Ballardvale, Mass.,.....	Sept., 1866
Waters, Warren L.....	Hartford, Conn.,.....	Sept., 1865
Weaver, Jonathan .....	South Woodstock, Conn.,..	Sept., 1866
Webb, Clarence A.....	Canterbury, Conn.,.....	Sept., 1864
Wentworth, Sylvester W.....	Ipswich, Mass.,.....	Sept., 1864
West, Benjamin D.....	Chilmark, Mass.,.....	Sept., 1868
Wheeler, Stanton F.....	Plymouth, Vt.,.....	Sept., 1863
White, Henry.....	Roxbury, Mass.,.....	Sept., 1866
*Wilkinson, John.....	West Lubec, Maine,.....	Sept., 1861
Williams, Edwin.....	Wells, Maine, .....	Sept., 1870
Wilson, William S.....	Francistown, N. H.,.....	Sept., 1870
Wilson, Charles.....	Francistown, N. H.,.....	Sept., 1870
Wood, Charles E.....	Boston, Mass.,.....	Sept., 1868
Wright, Jed. Bliss.....	Highgate, Vt.,.....	March, 1871

## FEMALES.

Name.	Residence.	Admission.
Adams, Alda M.....	Charlestown, Mass.,.....	Sept., 1866
*Atkins, Sylvia B.....	Chatham, Mass.,.....	Sept., 1862
Axt, Matilda.....	New Haven, Conn.,.....	Sept., 1866
Ayshers, Mary.....	Hartford, Conn.,.....	Feb., 1867
Barnard, Ada J.....	Lowell, Mass.,.....	Sept., 1865
Barrett, Nelly E.....	Antrim, N. H.,.....	Sept., 1868
Bishop, Stella M.....	East Avon, Conn.,.....	Sept., 1866
Bond, Julia P.....	Hartford, Conn., .....	June, 1865
Boothby, Emily .....	Portland, Maine,.....	Oct., 1869
Bosworth, Mary Louise.....	Eastford, Conn.,.....	Sept., 1870
Boynton, Edith A.....	Enfield, Mass.,.....	Sept., 1869
*Brown, Emily E.....	North Stonington, Conn.,..	Sept., 1864
Brown, Mary E.....	Kensington, N. H.,.....	Sept., 1868
Brown, Susan F. ....	East Canaan, N. H.,.....	Nov., 1865
Burbee, Eliza A.....	Bondville, Vt.,.....	Sept., 1869
Callahan, Margaret.....	Waltham, Mass.,.....	Sept., 1868
Carey, Mary.....	Boston, Mass.,.....	Sept., 1863
Case, Lillie A.....	East Avon, Conn.,.....	Oct., 1867
Chaffin, Abbie L.....	Worcester, Mass.,....	Sept., 1865
Chapman, Nelly F.....	McLain's Mills, Maine,....	Sept., 1869
Coggins, Bridget.....	Lowell, Mass.,.....	Sept., 1868
Cole, Lizzie M.....	Concord, N. H.,.....	Sept., 1867
*Colley, Mary E.....	Falmouth, Maine,.....	Oct., 1862
*Corcoran, Ellen.....	East Boston, Mass.,.....	Nov., 1865
Daley, Nancy J.....	Chester, Conn.,.....	Sept., 1865
Darghan, Joanna.....	New Haven, Conn.,.....	Sept., 1867
Dube, Adeline.....	Orono, Maine,.....	Sept., 1866
Duffy, Ellen.....	Boston, Mass.,.....	Sept., 1867
*Dummer, Caroline L.....	Weld, Maine,.....	Sept., 1866
Dunnell, Marilla.....	Buxton Center, Maine,....	Sept., 1866
Emerson, Gertrude.....	Danby, Vt.,.....	May, 1864
Fahy, Honora.....	Pittsfield, Mass.,.....	Sept., 1869
Fenner, Ida N.....	Oneco, Conn.,.....	Sept., 1870



Name.	Residence.	Admission.
Flagg, Clarinda J.....	Natick, Mass.,.....	Sept., 1862
French, Martha A.....	Tewksbury, Mass.,.....	Sept., 1870
Frost, Harriet E.....	Veazie, Maine,.....	Sept. 1865
Gillen, Jennie J.....	Fort Concho, Texas,.....	Sept., 1870
Glinnon, Anne.....	Jamaica Plain, Mass.,.....	Sept., 1869
Hamilton, Catharine S.....	Dorchester, Mass.,.....	Sept., 1869
Hanson, Mary S.....	Searsport, Maine,.....	Oct., 1870
Harper, Sarah.....	New London, Conn.,.....	Sept., 1867
Hartshorn, Annie.....	Boston, Mass.,.....	Sept., 1865
Hawley, Sarah.....	Leverett, Mass.,.....	Sept., 1869
Hawley, Mary J.....	Leverett, Mass.,.....	Sept., 1870
Hodgman, Mary.....	Knox, Maine,.....	Sept., 1868
Holt, Robina.....	Lewiston, Maine,.....	Sept., 1869
Howe, Eldora.....	Marlboro, Mass.,.....	Sept., 1861
Hull, Ida.....	Plainville, Conn.,.....	Sept., 1864
Jackson, Martha A.....	Stowe, Vt.,.....	Sept., 1869
Johnson, Linna.....	Bromfield, Maine,.....	Sept., 1870
Kennedy, Mary.....	Lawrence, Mass.,.....	Sept., 1869
*King, Sarah E.....	Middleboro, Mass.,.....	Sept., 1870
Ladd, Flora B.....	Island Pond, Vt.,.....	Sept., 1870
Lee, Mary J.....	East Longmeadow, Mass.,..	Sept., 1864
Leonard, Annie.....	Shoreham, Vt.,.....	Sept., 1868
Littlefield, Elizabeth.....	Kennebunk, Maine,.....	Sept., 1868
Lockwood, Nancy.....	Stamford, Conn.,.....	Sept., 1868
Lovejoy, Lydia A.....	Augusta, Maine,.....	Sept., 1867
Lummis, Delia A.....	Chaplin, Conn.,.....	Sept., 1866
Marr, Anna M. ....	North Washington, Maine,..	Sept., 1867
Marr, Hannah J.....	North Washington, Maine,..	Sept., 1869
Marshall, Mary E.....	Stowe, Vt.,.....	Sept., 1869
*Martes, Elizabeth.....	Charlestown, Mass.,.....	Sept., 1867
Mason, Flora.....	Bangor, Maine,.....	Sept., 1870
Mayberry, Clara E.....	Otisfield, Maine,.....	Nov., 1870
Mayberry, Cora E.....	Otisfield, Maine,.....	Nov., 1870
McCann, Margaret.....	Waterbury, Conn.,.....	Sept., 1870
McDonough, Elizabeth A.....	Russell, Mass.,.....	Oct., 1864
*Meacham, Mary.....	Chester, Mass.,.....	Sept., 1866
Meacham, Morcellia.....	Chester, Mass.,.....	Sept., 1866
*Miller, Catharine .....	Thompsonville, Conn.,.....	Sept., 1862



Name.	Residence.	Admission.
Monahan, Anna.....	Lowell, Mass.,.....	Sept., 1867
Mooers, Henrietta.....	Milo, Maine,.....	Sept., 1870
Moore, Eliza A.....	Derby, Conn.,.....	Sept., 1863
Moulton, Florette.....	Biddeford, Maine,.....	Sept., 1864
*Murphy, Mary E.....	Boston, Mass.,.....	Sept. 1862
O'Brien, Bridget.....	Portland, Maine,.....	Dec., 1868
O'Hearn, Eliza.....	Tewksbury, Mass.,.....	Sept., 1864
Parsons, Julia.....	Gloucester, Mass.,.....	Sept., 1868
Partridge, Sarah.....	South Meriden, Conn.,....	Sept., 1868
Perron, Clara.....	Yantic, Conn.,.....	Sept., 1867
Proctor, Emma J.....	West Gloucester, Maine,..	Sept., 1866
Quinn, Katie.....	Barton, Vt.,.....	Sept., 1868
Quinn, Mary.....	Williamstown, Mass.,....	Sept., 1869
Reekie, Ellen B.....	Clinton, Mass.,.....	Sept., 1868
Reekie, Margaret.....	Clinton, Mass.,.....	Sept., 1870
Richardson, Amelia.....	Mansfield, Mass.,.....	Oct., 1866
Robbins, Olive J.....	North Haven, Maine,....	Sept., 1869
Russell, Elizabeth.....	Lovell Center, Maine,....	Sept., 1869
Russell, Marybell.....	Brewer Village, Maine,....	Oct., 1870
Sanborn, Hester E.....	East Wilton, Me.,.....	Sept., 1867
Sargent, Lizzie M.....	Concord, N. H.,.....	Sept., 1867
*Scoles, Rachel A.....	Augusta, Maine,.....	Sept., 1864
Smith, Mary J.....	East Hartford, Conn., ....	Sept., 1865
Soper, Ella J.....	Lowell, Mass.,.....	Sept., 1866
Stevens, Lizzie A.....	Gardner, Mass.,.....	Sept., 1868
Stevens, Mary A.....	Gloucester, Mass.,.....	Sept. 1867
Stuart, Harriet N.....	Wells, Maine,.....	Oct., 1867
*Swett, Persis H.....	Henniker, N. H.,.....	Oct., 1863
Taft, Marion L.....	Worcester, Mass.,.....	Sept., 1864
Talcott, Lillia M.....	Bolton, Conn.,.....	Oct., 1866
*Tilton, Ellen L.....	Cheshire, Mass.,.....	Sept., 1864
Tilton, Emma J.....	Cheshire, Mass.,.....	Sept., 1869
Treat, Bertha H.....	Frankfort, Maine,.....	Oct., 1868
Tisdale, Jennie M.....	North Bridgewater, Mass.,	Sept., 1866
Walsh, Kate.....	Norwich, Conn.,.....	Sept., 1868
*Walsh, Margaret.....	Norwich, Conn.,.....	Sept., 1866
Wardman, Susanna.....	Ballardvale, Mass.,.....	Sept., 1869
Wentworth, Ella J.....	Ipswich, Mass.,.....	Sept., 1866
West, Deidama J.....	Chilmark, Mass.,.....	Sept., 1868

Name.	Residence.	Admission.
White, Mary B.....	Norton, Mass.,.....	Sept., 1869
Whiting, Flora E.....	Lovell Center, Maine,.....	Sept., 1869
Whitney, Hattie M.....	Gray, Maine,.....	Sept., 1867
Wiley, Florence H.....	Lockport, N. Y.....	Sept., 1866
Wilson, Hattie E.....	Easton, Conn.,.....	Sept., 1869
Wing, Nancy A.....	Wayne, Maine,.....	Sept., 1867
Woolson, Annie K.....	Hopkinton, Mass.,.....	Sept., 1869

\* Not present May 1st, 1871.

### SUMMARY.

	Males.	Females.	Total.
Supported by Maine, - - -	37	30	67
“ New Hampshire, - - -	13	6	19
“ Vermont, - - -	12	7	19
“ Massachusetts, - - -	71	46	117
“ Rhode Island, - - -	7	0	7
“ Connecticut, - - -	34	23	57
“ New Jersey, - - -	-	-	1
“ Friends, - - -	-	-	11
			298
Whole number in attendance within the year, - - -			298
Greatest number at any one time, - - -			263
Average attendance during year, - - -			258



## TERMS OF ADMISSION.

I. The Asylum will provide for each pupil, board, lodging and washing, the continual superintendence of health, conduct, manners and morals, fuel, lights, stationery, and other incidental expenses of the school-room ; for which, including TUITION, there will be an annual charge of one hundred and seventy-five dollars.

II. In case of sickness, the necessary extra charge will be made.

III. No deduction from the above charge will be made on account of vacation or absence, except in case of sickness.

IV. Payments are always to be made six months in advance, for the punctual fulfillment of which, a satisfactory bond will be required.

V. Each person applying for admission, must be between the ages of EIGHT and TWENTY-FIVE years ; must be of a good natural intellect ; capable of forming and joining letters with a pen, legibly and correctly ; free from any immoralities of conduct, and from any contagious disease.

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Applications for the benefit of the legislative appropriations in the States of Maine and New Hampshire, should be made to the Secretaries of those States respectively ; in Massachusetts, to the Secretary of the Board of Education ; in each case stating the name and age of the proposed beneficiary, and the circumstances of his parent or guardian. Applications as above should be made in Vermont, Rhode Island, and Connecticut respectively, to His Excellency, the Governor of the State. In all cases, a certificate from two or more of the selectmen, magistrates, or other respectable inhabitants of the township or place to which the applicant belongs, should accompany the application.

Those applying for the admission of *paying pupils*, may address their letters to the Principal of the Asylum ; and on all letters from him respecting the pupils, postage will be charged.

The time for admitting pupils is the *second Wednesday of September*, and at no other time in the year. Punctuality in this respect is very important, as it cannot be expected that the progress of a whole class should be retarded on account of a pupil who joins it after its formation. Such a pupil must suffer the inconvenience and the loss.

It is earnestly recommended to the friends of the deaf and dumb, to have them taught to write a fair and legible hand before they come to the





Asylum. This can be easily done, and it prepares them to make greater and more rapid improvement.

When a pupil is sent to the Asylum, unless accompanied by a parent or some friend who can give the necessary information concerning him, he should bring a written statement embracing specifically the following particulars :

1. The name, in full.
2. Post office address, and correspondent.
3. Day, month, and year of birth.
4. Cause of deafness.
5. Names of the parents.
6. Names of the children in the order of their age.
7. Were the parents related before marriage ? If so, how ?
8. Has the pupil deaf-mute relatives ? If so, what ?

The pupil should be *well clothed* ; that is, he should have both summer and winter clothing enough to last one year, and be furnished with a list of the various articles, each of which should be marked. A small sum of money, not less than five dollars, should also be deposited with the Steward of the Asylum, for the personal expense of the pupil not otherwise provided for.

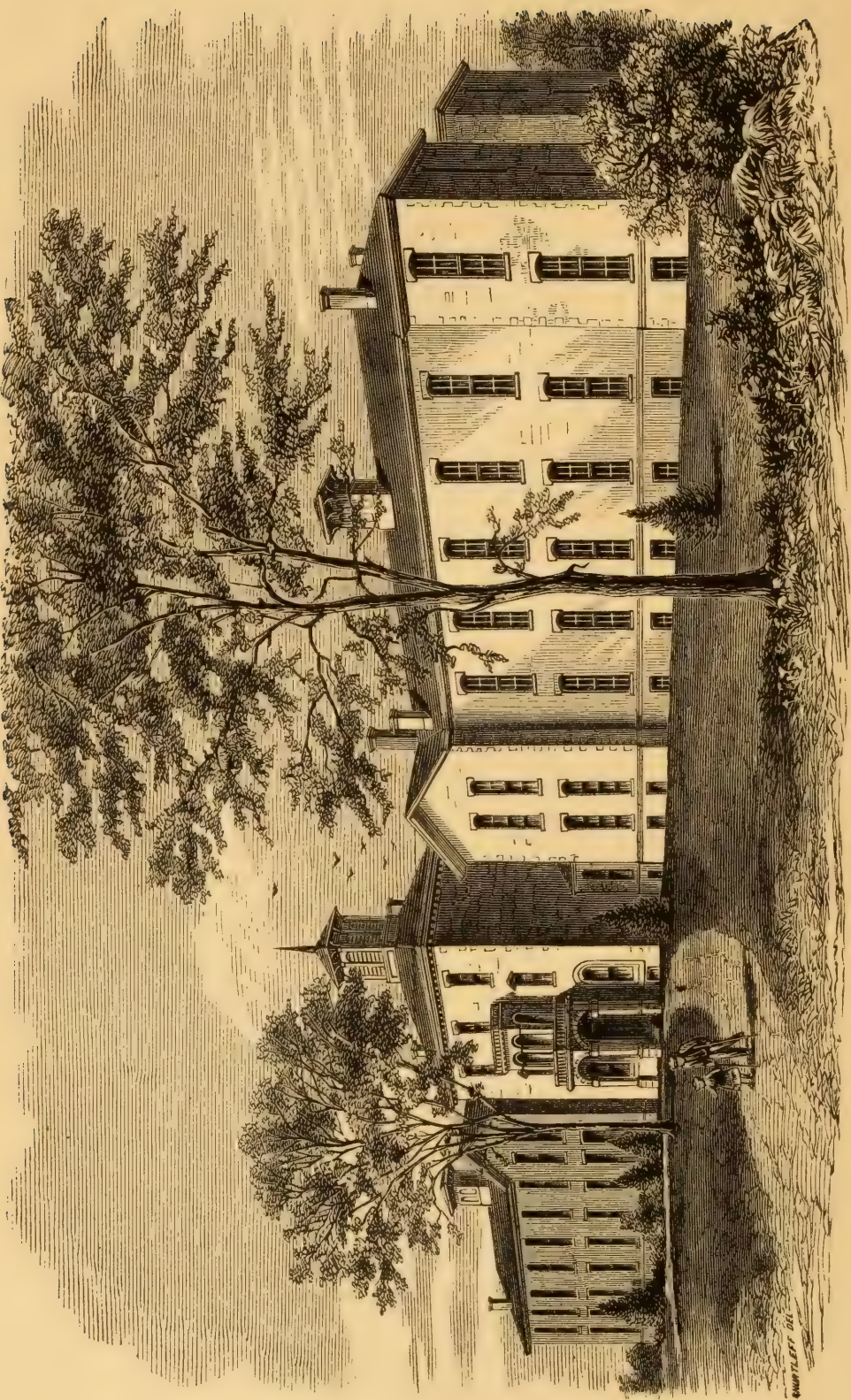
Packages of clothing, or boxes, sent by Express, will reach the pupils safely.  *The Express charges should in all cases be prepaid.* 

Careful attention to these suggestions is quite important.

There is but one vacation in the year. It begins on the last Wednesday of June, and closes on the second Wednesday of September. It is expected that the pupils will spend the vacation at home. This arrangement is as desirable for the benefit of the pupils, who need the recreation and change of scene, as for the convenience of the Institution, thus affording opportunity for the necessary painting, cleansing, &c. The present facilities for travel, enable most of the pupils to reach home on the evening of the day they leave Hartford. Every pupil is expected to return punctually at the opening of school, on the second Wednesday of September.

On the day of the commencement of the *Vacation*, an officer of the Asylum will accompany such pupils as are to travel upon the railroads between Hartford and Boston, taking care of them and their baggage, on condition that their friends will make timely provision for their expenses on the way, and engage to meet and receive them immediately on the arrival of the *early* train at various points on the route previously agreed on, and at the station of the Boston and Worcester Railroad, in Boston. A similar arrangement is made on the Connecticut River Railroad as far as to White River Junction. No person will be sent from the Asylum to accompany the pupils on their return, but if their fare is paid, and their trunks checked to Hartford, it will be safe to send them in charge of the Conductor.





HARTFORD HOSPITAL.



# ELEVENTH ANNUAL REPORT

OF THE

## EXECUTIVE COMMITTEE

OF THE

# HARTFORD HOSPITAL;

PRESENTED TO THE CORPORATION

AT THEIR

ANNUAL MEETING, APRIL 10, 1871.



HARTFORD:

PRESS OF CASE, LOCKWOOD & BRAINARD.

1871.



OFFICERS  
OF THE  
HARTFORD HOSPITAL,  
FOR 1871.

---

JAMES B. HOSMER, *President.*  
ALBERT DAY, *Vice President.*  
FLAVIUS A. BROWN, *Secretary and Treasurer.*

EXECUTIVE COMMITTEE.

EDSON FESSENDEN,  
GEORGE B. HAWLEY,  
CHARLES H. NORTHAM.

PHYSICIANS.

SAMUEL B. BERESFORD, M. D., E. K. HUNT, M. D.,  
GURDON W. RUSSELL, M. D., A. W. BARROWS, M. D.  
GEORGE B. HAWLEY, M. D., P. M. HASTINGS, M. D.  
HENRY P. STEARNS, M. D., J. C. JACKSON, M. D.

AUDITORS.

JAMES B. HOSMER,  
GEORGE M. BARTHOLOMEW.

COMMITTEE ON FINANCE.

HENRY A. PERKINS,  
EDSON FESSENDEN,  
GEORGE M. BARTHOLOMEW.

HOUSE PHYSICIANS.

C. A. P. DeCORTÉZ, M. D.,  
HENRY S. NOBLE, M. D.

LIBRARIAN.

GURDON W. RUSSELL, M. D.

STEWARD.

W. P. CORRIN.

MATRON.

MRS. CORRIN.

## DIRECTORS CHOSEN AT THE ANNUAL MEETING, APRIL, 1871.

JAMES B. HOSMER,  
 CHAS. R. CHAPMAN, *ex-officio*,  
 ALBERT DAY,  
 S. S. WARD,  
 E. A. BULKELEY,  
 G. W. RUSSELL,  
 CHARLES H. NORTHAM.

G. B. HAWLEY,  
 JAMES GOODWIN,  
 EDSON FESSENDEN,  
 ERASTUS COLLINS,  
 CHARLES M. POND,  
 GEORGE SEXTON,

VICE PRESIDENTS FOR LIFE BY SUBSCRIPTION OF FIVE HUNDRED DOLLARS AND  
UPWARDS, ALSO, DIRECTORS FOR LIFE.

T. M. ALLYN,  
 \*A. S. BECKWITH,  
 CHARLES BOSWELL,  
 \*LEE & \*BUTLER,  
 GEO. M. BARTHOLOMEW,  
 \*JAMES G. BOLLES,  
 JOHN BEACH,  
 C. N. BEACH,  
 GEORGE BEACH,  
 J. SEYMOUR BROWN,  
 S. C. COLT,  
 \*SAMUEL COLT,  
 CHENEY BROTHERS,  
 LEONARD CHURCH,  
 JOSEPH CHURCH,  
 GEORGE H. CLARK,  
 Mrs. SAMUEL COLT,  
 SAMUEL COIT,  
 ERASTUS COLLINS,  
 FRANCIS B. COOLEY,  
 CALVIN DAY,  
 THOMAS M. DAY,  
 FOSTER & CO.,  
 JAMES GOODWIN,  
 JOHN H. GOODWIN,  
 G. B. HAWLEY,  
 \*ELLERY HILLS,  
 JAMES B. HOSMER,  
 EDMUND G. HOWE,  
 R. W. H. JARVIS,

H. & W. KENEY,  
 C. C. LYMAN,  
 \*WILLIAM T. LEE,  
 \*SAMUEL MATHER,  
 C. H. NORTHAM,  
 J. M. NILES,  
 J. S. NILES,  
 H. A. PERKINS,  
 JOSEPH PRATT,  
 DANIEL PHILLIPS,  
 CHARLES M. POND,  
 JOHN M. RIGGS,  
 THOMAS SMITH,  
 \*JOSEPH TRUMBULL,  
 SAMUEL I. TUTTLE,  
 WILLIAM F. TUTTLE,  
 Miss MARY W. WELLS,  
 WOODRUFF & BEACH,  
 \*THOMAS S. WILLIAMS,  
 \*DAVID WATKINSON,  
 \*JOHN WARBURTON,  
 \*ROBERT WATKINSON,  
 \*MARY A. WARBURTON,  
 OSWIN WELLES,  
 W. M. WATERMAN,  
 Miss E. M. WATKINSON,  
 Mrs. MARIA WATKINSON,  
 TERTIUS WADSWORTH,  
 HUNT, HOLBROOK & BARBOUR.

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\*Deceased.

DIRECTORS FOR LIFE BY SUBSCRIPTION OF TWO HUNDRED DOLLARS AND  
UPWARDS.

\*CHESTER ADAMS,  
C. H. BRAINARD,  
CHARLES BENTON,  
\*BOLLES & SEXTON,  
HIRAM BISSELL,  
BIRCH & BRADLEY,  
J. G. BATTERSON,  
E. A. BULKELEY,  
\*THOMAS K. BRACE,  
LUCIUS BARBOUR,  
CASE, TIFFANY & CO.,  
ELISHA COLT,  
NEWTON CARTER,  
H. KENDALL CARTER,  
\*WILLIAM L. COLLINS,  
CHARLES COLLINS,  
\*DANIEL P. CROSBY,  
JULIUS CATLIN,  
AUSTIN DUNHAM,  
LEONARD DANIELS,  
DAY, GRISWOLD & CO.,  
JAMES DIXON,  
EDSON FESSENDEN,  
\*EBENEZER FLOWER,  
\*S. W. GOODRIDGE,  
\*ISAAC HILLS,  
HUNGERFORD & CONE,  
NELSON HOLLISTER,  
REV. JAMES HUGHES,  
\*H. HUNTINGTON,  
E. N. KELLOGG,

GEORGE S. LINCOLN & CO.,  
\*SIMEON L. LOOMIS,  
\*MRS. JOSEPH MORGAN,  
ROLAND MATHER,  
J. & M. MERRIMAN,  
\*SAMUEL MATHER,  
\*WILLIAM MATHER,  
\*JOHN M. NILES,  
\*C. F. POND,  
\*IRA PECK,  
\*FRANCIS PARSONS,  
\*GUY R. PHELPS,  
MISS ESTHER PRATT,  
E. M. REED,  
HENRY C. ROBINSON,  
E. C. ROBERTS,  
ROGERS BROTHERS,  
\*ELISHA K. ROOT,  
\*E. G. RIPLEY,  
CHARLES SEYMOUR,  
\*MRS. ELIZA K. SHEPARD,  
\*WILLIAM L. STORRS,  
E. TAYLOR & CO.,  
O. G. TERRY,  
\*ISAAC TOUCEY,  
\*MILES A. TUTTLE,  
WILLIAM W. TURNER,  
SAMUEL S. WARD,  
GEORGE M. WELCH,  
\*JAMES H. WELLS.

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\*Deceased.

# REPORT

## OF THE EXECUTIVE COMMITTEE OF THE HARTFORD HOSPITAL TO THE CORPORATION, AT THEIR ANNUAL MEETING, APRIL 10TH, 1871.

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In 1854, the terrible accident at the car factory, first aroused the citizens of Hartford to the importance of a hospital. There was no place where the wounded and dying could receive the attention their situation demanded.

The necessity of a hospital was then demonstrated, and the citizens of Hartford called their first meeting May, 1854, when a committee was appointed to prepare a constitution and charter, and report to a subsequent meeting. The charter was submitted to the General Assembly, who, at their May Session, 1854, incorporated the Hartford Hospital.

A committee was appointed to solicit subscriptions from the citizens, and an application was made to the General Assembly of 1865 for the bounty of the State. This application resulted in the appropriation of \$10,000 from the State Treasury, to be paid whenever \$20,000 should be raised by private subscription for the same object. Forty-one thousand dollars was subscribed by citizens, and \$10,000 received from the State, which together amounted to \$51,000.

The present hospital site of seven acres was purchased August, 1855, at a cost of \$16,738.

A committee was appointed in 1856 to procure plans, and arrange for suitable buildings for hospital purposes.

The committee was favored with the superior skill and long experience of Mr. W. R. West, the architect, who presented them with a plan possessing all the modern improvements of



Europe and America. The plan was so arranged that any part could be built without interfering with the perfection of the whole structure. Additions can be made without altering or changing any part of the building previously constructed.

The center building and north wing was erected in 1858, when labor and material was procured at the cheapest rate; and dedicated April 18th, 1859. The cost of completing these buildings with plumbing, heating apparatus, &c., was \$34,000, which together with the grounds amounted to \$50,738.

This building accommodated forty-four patients, and was first opened for their reception Aug. 1st, 1860. Two thousand dollars was granted by the General Assembly at their May Session, 1860, to defray the expense of the sick and indigent at the hospital, from various parts of the State. The Legislature of 1861 made the appropriation of \$2,000 an annual appropriation. Dec. 8th, 1856, the town of Hartford passed the following vote:

“That in relation to those persons who, by reason of sickness or accident, are thrown upon the town for temporary support, during such sickness, or while they need medical aid, the Selectmen be authorized to keep them at the Alm-House or at the Hartford Hospital, at their discretion.”

Patients are received from the various towns of the State for a small compensation. Many who are hospital patients are admitted free. The cost of providing for the poor sick, from all parts of the State, is much greater than all the compensation received from the Legislature. Many are attracted to Hartford from the advice of friends, utterly destitute, trusting only to the charity of the hospital for admission. The State cannot expect that the city of Hartford will provide for the sick and destitute from the various towns without compensation. There is no place where this class can be cared for at so cheap a rate. It is for the economy of the State to continue their interest in our institution. Managed without cost, medical attendance free, with buildings and land costing \$188,495.60, with a fund amounting to \$153,500, the income of which can only be used for defraying the current

expenses, where the sick are received and provided with every attention that can aid in their recovery, and supported for much less than the simple cost of board.

The question is sometimes asked, "Why not return these persons to the towns which by birth or residence are compelled to support them?" Did the Samaritan inquire of the man who went down from Jerusalem to Jericho and fell among thieves, who stripped him of his raiment, and wounded him and departed, leaving him half dead, whether he was rich or poor, what country he belonged to, or whether some town or people were responsible for his support? No. When he saw him, "He had compassion on him, and went to him, and bound up his wounds, pouring in oil and wine, and set him on his own beast, and brought him to an inn, and took care of him. And on the morrow when he departed he took out two pence and gave them to the host, and said unto him, take care of him, and whatsoever thou spendest more, when I come again I will repay thee."

During the first years of the hospital, the number of patients was small, but the average number increased until the wards were so crowded that patients were continually refused admission. A large number of Connecticut soldiers have been received and treated at the institution. Not only were the wards crowded beyond all principles of sanitary laws, but the kitchen, laundry, and other accommodations, were entirely inadequate for so large a family. As the number of patients continued to increase, the absolute necessity for increased accommodation became more urgent. The full capacity of the hospital was forty-four patients. Each ward accommodated twenty patients, and four private wards accommodated one patient each. There were sixty-seven patients in the institution, which compelled us to crowd the wards contrary to every principle of health, besides leaving no beds unoccupied for extra demands, which might arise from unforeseen accident. There were ten persons employed in caring for the patients. To accommodate this large family we had no laundry, and were compelled to occupy a part of the kitchen for laundry purposes. With a range crowded



to its full capacity for culinary purposes, we were compelled to bake about twenty-five loaves of bread daily. There was no suitable cellar for vegetables. The sleeping rooms for domestics were insufficient, and the store-rooms for groceries, meats, flour, &c., were not arranged for so large a family.

These facts and necessities were placed before the public, and a subscription for building purposes was again presented to the citizens. They have generously added \$87,200 to complete the present building arrangements. The State gave \$20,000 for the same purpose. The whole amount given to complete the new buildings was \$107,200.

There has been three wings added to the original building. One extending south and corresponding to the north wing, and two cross wings to connect the present building with future additions. The south wing is 113 feet long, varying in width from 32 feet to 44 feet, and separated from the main building 14 feet. It contains two wards with all their necessary appliances. Each ward is 70 feet long, 15 feet high, and 27 feet broad, measuring within the walls. On either side of the wards are five windows. Between each two windows are two beds one foot from the wall, averaging seven feet apart, but so arranged that each pair shall be near each other, thus giving an increased space between the beds at each window. The windows are of ample size, extending from the ceiling to the floor, one being allowed for every two patients. In addition to the ward, and constituting almost a part of it, and connected with it directly, are certain rooms which are indispensable. These are, a room for offensive patients, the nurse's room, a bath and ablution room, water closets, and clothes room. There is also a dining room with a sink, and other accommodations, where the patients who are able to leave their beds take their meals. Besides the above described accommodations, there are private rooms as circumstances may require for those who are willing to pay for extra services. Each ward contains 1880 feet superficial surface, and 28,340 cubic feet of space. Each ward furnishes accommodation for twenty patients, which gives to each patient 94 feet of superficial surface, and 1,417 cubic feet of space. In all

well regulated hospitals, the number of superficial feet of space varies from 90 to 104 feet, and the number of cubic feet varies from 1,200 to 1,800 for each patient.

In all well regulated prisons 1,000 cubic feet is allowed for every inmate. In hospitals where the sick are confined night and day, a much greater number of cubic feet should be allowed for each patient.

Beneath the wards is a basement of 9 feet. At the south end of the basement is an entrance to the dispensary department. Connected with this department are two waiting rooms for patients, male and female, a room for an apothecary, a bath room, and water closets, with two rooms for attending and consulting physicians. In connection with the hospital, the expense incurred by the dispensary department will be small. In the basement are dormitories for the female attendants, and various accommodations which are continually demanded. There is also a bakery with a large and commodious oven, so situated as to accommodate all parts of the building.

The heating apparatus, with all its et ceteras, is located in a well lighted cellar beneath.

The cross wings are 45 feet long, two stories high. In these cross wings are eight private wards, furnished with all the comforts which the sick demand. These rooms are entirely separated from the main wards. They are heated by registers and grates of the most approved pattern. These rooms have private bath rooms and water closets. There are eight private rooms in each wing furnished with every accommodation; and sixteen in the whole building.

The present operating room is from necessity used as a hall or passway to connect the two wings. Such a room is indispensable to a hospital. In order to furnish a suitable room for this purpose, another story is placed above the present operating room, which locates it in a position both central and easy of access.

At the entrance of the hospital fronting the door, is a marble tablet, 9 feet wide and 12 feet high, of imposing appearance. On this tablet is recorded the names of all donors to



the hospital, who, at their death, have contributed \$5,000 or upwards. On the left hand corner is 1857, the date when the center building and north wing were erected; on the right hand corner is 1870, which indicates the time when the tablet was erected, also, in the same year, the south wing and laundry were completed. The inscription on the tablet is as follows: "In grateful remembrance of all charitable persons, whose united benefactions have founded and sustained this institution. The larger donations are hereon recorded."

In all hospitals, it is necessary to have arrangements where the patients can receive the benefits of the open air. It was first thought advisable to erect two summer houses, one for each wing. It was also suggested that wide balconies under the windows of each ward might be preferable. There are many reasons why the balconies were preferred. The cost of them is about the same as the summer houses, but they are far more durable. From the balconies the patient can have easy access to the open air in all suitable weather without the inconvenience of exposure from wet or damp ground.

The whole building is heated by Brown's hot water apparatus. There is no doubt that water furnaces as here applied are far superior to steam for heating hospitals. The heat can be regulated more perfectly and with much greater economy, as the heat of the water can be graduated to any degree of temperature the weather requires. For moderate weather a few degrees of heat in the water, produced by a small consumption of coal, will furnish the amount of heat required. When steam is used, it is impossible to get any heat until steam is generated. Thus it is impossible to regulate the heat in mild weather. This water furnace has given perfect satisfaction in the most severe, as well as in mild weather.

From the first organization of hospitals to the present time there has been serious trouble in regard to the beds. In many hospitals down to the present time straw alone is used. Every patient is furnished with a clean straw bed, thus avoiding all uncleanness of a former occupant. There are many serious objections to a straw bed. In consequence of the frequent changing of the straw, the rooms are filled with dust

and litter. They are hard for feeble sick persons, and are not suitable to be used for that purpose. To relieve the hardness of straw, mattresses of various kinds were substituted. Experience proved that the best curled hair mattress was the most economical. These mattresses were expensive, and at first answered the purpose. After a few months of constant use they become extremely unwholesome from absorbing the effete matter which is constantly and surely emanating from its occupant. They are also contaminated from various causes. After a few months of constant use, they become extremely uneven and unfit for use. Every patient is compelled to lie on a mattress which has been occupied by many others.

It is with great satisfaction we have been able to discard all mattresses of hair or other substance, thus escaping one great source of uncleanness and contamination.

The hospital is now supplied with the woven wire mattress, with iron frame. There are many reasons why the wire mattress is peculiarly adapted to hospitals. This mattress with iron frame costs less than a good hair mattress. They require no covering but blankets to protect the patient from the wire. They are elastic and yield to the form of the body like a water bed. Every patient can have a perfectly clean bed when admitted.

They are free from vermin of every kind. They are durable, and never settle nor sag. The wire mattress has been in use for a long time in the hospital with perfect satisfaction, and aid much in the recovery of the patients by the cleanliness and comfort which they contribute to their occupants.

During the last ten years the crowded condition of the hospital has prevented many repairs. The ceilings of the north wing and center building have been painted, also all the wood work. The entire plumbing has been renewed, including water closets, bath tubs, etc.

A laundry has been erected on the east side of the center building at a suitable distance to accommodate the wards to be erected in future. This building is 35 ft. wide and 45 ft. long with two stories and a basement 12 ft. high. In this



laundry is a steam boiler, with arrangements to heat water for the whole building. An ample supply is furnished for both laundry use and the necessary demands for cleanliness, bathing, and culinary purposes. There is a small steam engine to run the washing machines. The first floor is divided into two parts by a stairway to the second story. The soiled clothes are received into the south division. They pass into one end of the drying room, through the other into the ironing room. The second story is used for store rooms, work shop, etc. Connecting with the laundry on the east is a shed 40 ft. by 25 ft., and on the east of this shed is an ice-house, and a barn which accommodates six cows and a horse. These buildings are enclosed with a high picket fence to protect them from intruders. The entire space is stoned and graveled, making it perfectly dry at all seasons of the year.

The condition of the grounds was such that no improvement could be made without a perfect grading. Some parts were low and wet, the water standing in pools during the rainy season. The health of the hospital as well as of the neighborhood demanded that the grounds should be graded. There was sufficient earth on the lot for grading purposes. The high ground was cut down and the low places filled from three to four feet. A permanent walk of stone covered with gravel was made from the eastern side of the grounds, passing around the north side of the building to the only entrance of the hospital, on the west side. This walk winds pleasantly through the grounds, and will be a delightful avenue when shaded by trees. The buildings on the east side of the hospital will be protected from view by trees and shrubbery, and ornamental trees will be arranged in appropriate groups.

The hospital is built of Portland stone, first-class rubble work, each stone lying on its natural bed, the long axis running north and south, so that both sides have the sun on them a part of the day.

The length of the center building, with the two wings, is 303 ft., and accommodates one hundred patients.

The hospital grounds cost \$16,738. The original center building and wing cost \$34,000. The new wings, including

laundry, grading, etc., cost \$137,757.60. The whole amount expended from the commencement to the present time, including the land and present improvements, amounts to \$188,495.60. The original subscription for building purposes was \$41,000. The subscription for recent improvements is \$86,200, making the entire subscription for building purposes \$127,200. The legislature of the State have made two appropriations for building purposes; in 1858 \$10,000, 1869 \$20,000, total \$30,000. The total amount received from subscription and from the State for site and building purposes is \$157,200. The whole amount spent for the same purpose, when the present improvements are completed, will amount to 188,495.60, thus it will be seen that the hospital is in debt \$31,295.60, on building account. The legislature have made an annual grant of \$2,000 since 1861, for partially defraying the current expenses. This annual grant has amounted to \$22,000. The whole amount received from the State for soldiers is \$15,095.08. The whole amount received from other sources, including the sums paid for board of patients, income from the fund, etc., is \$82,906.12. The whole amount received from all sources to defray the annual current expenses from the commencement of the Institution on its present site, August 1st, 1861, is \$120,001.20. The amount paid for current expenses during the same time is \$121,590.52. The balance of \$1,589.32 due for current expenses, was received from special donation. The entire amount of site, building purposes, and current expenses is \$312,986.60, all of which is paid excepting a debt of \$31,295.60 for building purposes.

The permanent fund of the hospital amounts to \$153,500. There has been \$127,200 contributed by citizens for building purposes, making a total contribution by citizens of \$280,700, including the fund.

From the opening of the hospital to the present time 2,239 patients have received the benefits of the institution, at the average cost of \$5.68 per week. Of those 1,596 have recovered, 155 improved, 120 removed stationary, 304 have died; 1097 were Americans and 1142 of foreign birth, 1827 of tem-



perate and 412 intemperate habits. Their average duration at the hospital was eight weeks and three-tenths. There have been 72 births, males 29, females 43. The number of patients is estimated from the first opening of the present building Aug. 1st, 1860, to March 1st, 1871. The following tables are calculated from the reports of the last ten years :

	Males.	Females.	Total.		Males.	Females.	Total.
March,	105	49	154	October,	150	72	222
April,	110	51	161	November,	121	62	183
May,	116	42	158	December,	119	37	156
June,	118	46	164	January,	145	55	200
July,	128	51	179	February,	179	38	217
August,	142	58	200	Totals,	1579	619	2198
September,	146	58	204				

*Nativity.*

Americans,	.	.	1077	Foreigners,	.	.	1121
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*Habits.*

Temperate,	.	.	1827	Intemperate,	.	.	412
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*Occupation.*

MALES.				FEMALES.			
Mechanics,	.	.	473	Housekeepers,	.	.	273
Laborers,	.	.	590	Servants,	.	.	272
Farmers,	.	.	179	Children,	.	.	49
Children,	.	.	64	Tailloresses,	.	.	3
Seamen,	.	.	56	Seamstresses,	.	.	20
Clerks,	.	.	37	Teachers,	.	.	1
Peddlers,	.	.	7				—
Physicians,	.	.	6	Total,	.	.	618
Professors,	.	.	1				1621
Tailors,	.	.	2				—
Accountants,	.	.	3	Total males and females,			2239
Students,	.	.	4				
Merchants,	.	.	2				
Soldiers,	.	.	192				
Teachers,	.	.	5				
Total,			1621				

*Births.*

Males, . . . . .	29	Females, . . . . .	43
			29
			—
		Total births, . . . . .	72

*Diseases.*

Accidents, . . . . .	36	Croup, . . . . .	1
Consumption, . . . . .	90	Diphtheria, . . . . .	1
Typhoid, . . . . .	37	Spinal Disease, . . . . .	3
Cancer, . . . . .	11	Gastric Ulcer, . . . . .	1
Menengitis, . . . . .	5	Hydrothorax, . . . . .	1
Measles, . . . . .	5	Pyemia, . . . . .	1
Pericardites, . . . . .	10	Asthma, . . . . .	2
Dysentery, acute, . . . . .	3	Paraplegia, . . . . .	1
Apoplexy, . . . . .	1	Hepatitis, . . . . .	4
Concussion of Brain, . . . . .	1	Prostatitis, . . . . .	1
Senile Debility, . . . . .	11	Congestion of Lungs, . . . . .	1
Delirium Tremens, . . . . .	4	Still-born, . . . . .	4
Lead Poison, . . . . .	1	Congestion of Brain, . . . . .	2
Pneumonia, . . . . .	9	Chronic Dysentery, . . . . .	2
Peritonitis, . . . . .	3	Pneumothorax, . . . . .	1
Scarlatina, . . . . .	1	Rupture of Uterus, . . . . .	1
Chronic Diarrhea, . . . . .	2	Strangulated Hernia, . . . . .	1
Empyema, . . . . .	2	Opium Habit, . . . . .	1
Debility, general, . . . . .	5	Infants, . . . . .	4
Morbus Coxareus, . . . . .	2	Gangrene, . . . . .	1
Hemiplegia, . . . . .	4	Phleg. Erysipelas, . . . . .	1
Chronic Rheumatism, . . . . .	1		—
Metretes, . . . . .	3	Total, . . . . .	304
Puerperal Fever, . . . . .	5	Males, . . . . .	204
Bright's Disease, . . . . .	17	Females, . . . . .	100

By referring to the Steward's Report, we shall find that 329 patients have been admitted to the hospital during the fiscal year. A larger number than has ever been admitted during the same length of time. Of this 226 were males, 103 females. At the commencement of the year, there were 41 patients, 20 males, 21 females; at the close 64, 43 males, 21 females. There has been 370 patients under treatment, 246 males, 124 females. Of this number 210 have recovered, 139 males, 71 females; 28 improved, 19 males, 9 females.

Removed 28, 18 males, 10 females. 50 have died, 35 males, 15 females. Of this number 22 were admitted in a dying condition, and remained less than one week, 8 remained less than two weeks. Many of the others were cases of incurable chronic diseases, and were placed at the hospital to receive its peculiar benefits, with no expectation of recovery. There has been 17 births, 10 males, 7 females. The whole number of weeks occupied by patients was 2,581. Of this number 2,172 $\frac{5}{7}$  were occupied by citizens, 408 $\frac{2}{7}$  by soldiers. Number of weeks occupied by soldiers from other States, 55 $\frac{5}{7}$ . Number of Connecticut soldiers admitted, 51. Number of seamen, 7. The average duration of patients, 8 weeks. The largest number in the hospital any one day was 67; least number 39. There were 140 Americans, and 189 foreigners. Of this number 90 were born in Connecticut, 18 in Massachusetts, 12 in New York State, the remainder were from other States. From Ireland 143, Germany 15, England 19, Scotland 5.

There were 272 of temperate habits, and 57 intemperate. Patients have been received from 113 different towns in the State.

The hospital will long lament the death of their esteemed friend and patron, Chester Adams, Esq. Mr. Adams was one of the first originators of the "Home for the sick," and has from the first been one of the executive committee of the Hartford Hospital. His labors have been constant in this noble charity. He has not only aided it by his sound judgment and great energy of character, but he has been one of the largest benefactors in pecuniary aid. His original subscription was \$200; in 1865 he gave the hospital \$3,000; a short time before his death he made a subscription of \$5,000 for building purposes, and at his death made the hospital one of the residuary legatees, the amount of which is not yet determined, but will probably be many thousands of dollars. His liberality was not alone bestowed on the hospital. His great wealth, accumulated by a long life of indomitable perseverance and superior business capacity, has been nobly contributed to many charitable institutions.



The death of Mr. D. P. Crosby has taken another citizen from our life directors, whose many deeds of charity have been unknown to the public. The hospital has added from his estate \$10,000 to the permanent fund, \$5,000 of which has been paid to the treasurer.

The death of Joseph P. Allyn, Esq., a worthy friend of the hospital, has by his will added \$5,000 to the permanent fund. During the last year this fund has been increased \$10,000.

The property of the hospital consists of the site and buildings, which cost \$188,495.60, on which there is a debt of \$31,295.60, with a permanent fund of \$153,500, as follows:

David Watkinson	fund,	.	.	.	\$40,000
A. S. Beckwith	"	.	.	.	9,000
Chester Adams	"	.	.	.	3,000
Augustus Utley	"	.	.	.	1,000
Miles A. Tuttle	"	.	.	.	1,000
Charles F. Pond	"	.	.	.	2,000
Francis Parsons	"	.	.	.	1,000
Alfred Smith	"	.	.	.	11,000
Ebenezer Flower	"	.	.	.	10,000
John Grou	"	.	.	.	500
Thos. S. Williams	"	.	.	.	5,000
Matilda S. Adams	"	.	.	.	500
George Hall	"	.	.	.	8,000
Charles Hosmer	"	.	.	.	500
Mrs. Mary Warburton	"	.	.	.	5,000
George Hall fund, by Mrs. Chas. Hosmer,		.	.	.	25,000
Harriet Hall fund, for single women, by		.	.	.	
Mrs. Charles Hosmer,		.	.	.	20,000
Daniel P. Crosby	fund,	.	.	.	5,000
Joseph P. Allyn	"	.	.	.	5,000
Mrs. Charles Hosmer,	"	.	.	.	1,000
Total amount of permanent fund,					<hr/> \$153,500



*Income from Fund.*

David Watkinson	fund,	.	.	.	\$2,829.21
Chester Adams	"	.	.	.	203.29
A. S. Beckwith	"	.	.	.	609.88
M. A. Tuttle	"	.	.	.	60.00
A. Utley	"	.	.	.	76.68
C. F. Pond	"	.	.	.	140.00
F. Parsons	"	.	.	.	67.38
T. S. Williams	"	.	.	.	280.10
A. Smith	"	.	.	.	683.84
E. Flower	"	.	.	.	650.00
J. Grou	"	.	.	.	30.00
Miss M. S. Adams	"	.	.	.	30.00
Chas. Hosmer	"	.	.	.	30.00
Harriet Hall	"	for single women,			1,083.25
George Hall	"	.	.	.	2,544.20
Mrs. M. Warburton	"	.	.	.	484.00
Mrs. Charles Hosmer,	"	.	.	.	60.68
J. P. Allyn	"	.	.	.	450.00
D. P. Crosby	"	.	.	.	125.00

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Total income from fund, . . . \$10,437.51

The hospital has received during the fiscal year \$19,443.63 from the following sources. The State has paid \$2,036.31, at the rate of 93 cents per week, for care of patients, not including seamen or soldiers. Received from the State for soldiers, at the rate of \$6.00 per week, \$2,460.21. Amount received from pay patients is \$3,786.56, at the rate of \$1.83 per week, not including seamen or soldiers. From seamen \$191.18, at the rate of \$5.00 per week. From the fund \$10,437.51, and from other sources \$531.86.

The disbursements during the fiscal year have amounted to \$19,854.80.

The expenses have exceeded the income \$411.17.

There are many reasons why the current expenses will increase the coming year. During the past year only two

wards have been occupied by patients ; there will now be four wards occupied. The increased accommodations for laundry purposes will increase the expense. It is necessary that the fund should be increased to meet all these demands, and relieve the poor from paying their last penny for hospital support.

The town of Hartford paid \$1,235.90 for the support of patients at the rate of \$2.00 per week.

The Rev. Dr. Jackson and his assistants have had charge of the religious services in the upper ward of the male wing, and the lower ward of the female wing ; and Rev. Dr. Thompson has taken charge of the lower ward of the male wing, and upper ward of the female wing.

The appointed physicians have continued their gratuitous services at the hospital, night or day, as circumstance have required. Many important operations are continually being performed, but not without the consultation of the medical staff, which adds much to the responsibility of their position.

The arduous duties of the Steward and Matron have been most acceptably performed, during all the trials and perplexities incident to repairs and improvements.

Many patients are admitted to the hospital, not only destitute of pecuniary means, but clothed in rags which are only fit for the flames. Health and decency require that they shall be provided with garments. The hospital has no funds to procure those garments. We would most urgently call upon our citizens to visit our institution, become acquainted with the wants of the patients, and interest themselves in their welfare, both pecuniarily and spiritually, and learn by actual experience the glorious privilege of doing good.

GEORGE B. HAWLEY,	}	<i>Executive Committee.</i>
EDWIN FESSENDEN,		
CHARLES H. NORTHAM.		



## STEWARD'S REPORT.

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REPORT of the Steward of the Hartford Hospital, to the Executive Committee, for the fiscal year ending February 28, 1871.

*Receipts of the Hartford Hospital for the fiscal year ending February 28, 1871.*

Received from the State Appropriation,

April 1st, 1870,	.	.	.	\$507.64
July 1st, 1870,	.	.	.	501.63
October 1st, 1870,	.	.	.	511.98
January 1st, 1871,	.	.	.	515.06
				<hr/>
Total,	.	.	.	\$2,036.31

Received from the State for Soldiers,

April 1st, 1870,	.	.	.	\$626.19
July 1st, 1870,	.	.	.	580.17
October 1st, 1870,	.	.	.	604.22
January 1st, 1871,	.	.	.	649.67
				<hr/>
Total,	.	.	.	\$2,460.25

Board of Patients,	.	.	.	\$3,786.56
“ “ Seamen,	.	.	.	191.18
Watkinson Fund,	.	.	.	\$2,829.21
Beckwith “	.	.	.	609.88
Adams “	.	.	.	203.29
Utleigh “	.	.	.	76.68



Tuttle	Fund,	.	\$60.00
Pond	"	. .	140.00
Parsons	"	. .	67.38
Smith	"	. .	683.84
Williams	"	. .	280.10
Flower	"	. .	650.00
Grou	"	. .	30.00
Adams	"	. .	30.00
Hosmer	"	. .	30.00
Hall (Geo.)	"	. .	2,544.20
Hall (Harriet)	"	. .	1,083.25
Warburton	"	. .	484.00
Allyn	"	. .	450.00
Crosby	"	. .	125.00
Hall (Harriet) for single women,			60.68
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Total receipts from fund,	.	.	\$10,437.51
From other sources,	.	.	531.60
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Total receipts,	.	.	\$19,443.41
March 1st, 1870, there was credited to			
the Hartford Hospital, the balance			
due from the State,	.	.	\$166.37
State appropriation, 1870,	.	.	2,000.00
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Total,	.	.	\$2,166.47
Drafts paid the Hospital upon orders			
of the Governor during the year,			2,036.31
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Balance due the Hospital March 1st, 1871,			\$130.06

*Disbursements of the Hartford Hospital during the fiscal year  
ending February 28, 1871.*

Breadstuffs, . . . . .	\$740.99
Barn Expenses, . . . . .	726.70
Butter and Eggs, . . . . .	1,184.14
Coal, . . . . .	1,675.07
Furniture, Bedding, and Crockery, . . . . .	1,401.34
Groceries, . . . . .	1,465.85
Gas, . . . . .	369.82
Ice, . . . . .	226.45
Insurance, . . . . .	562.87
Interest, . . . . .	2,244.86
Meat and Fish, . . . . .	3,838.37
Medicines, . . . . .	979.21
Miscellaneous, . . . . .	257.65
Milk, . . . . .	549.45
Printing Reports, . . . . .	109.20
Repairs and Imp., . . . . .	168.67
Salaries, . . . . .	800.00
Vegetables, . . . . .	433.62
Wages, . . . . .	1,894.01
Washing and Soap, . . . . .	147.43
Water, . . . . .	79.10
Total disbursements, . . . . .	<hr/> \$19,854.80

## NUMBER OF PATIENTS

WHO HAVE RECEIVED THE BENEFITS OF THE HOSPITAL DURING  
THE FISCAL YEAR ENDING FEBRUARY 28, 1871.

	Males.	Females.	Total.
The whole number of patients in the Hos- pital at the beginning of the year, .	20	21	41
Admitted during the year, . . .	226	103	329
Total number in the course of the year,	246	124	370
Of this number there have been discharged,			
Recovered, . . . . .	139	71	210
Improved, . . . . .	19	9	28
Removed, . . . . .	10	8	18
Died, . . . . .	35	15	50
	203	103	306
Remaining in the Hospital March 1, 1871,	43	21	64
Whole number admitted to March 1, 1871,			2,239
Whole number discharged to Mar. 1, 1871,			2,175
Whole number remaining March 1, 1871,			64

## GENERAL STATISTICS.

YEAR.	Admitted.	Whole number under care.	Discharged.	Recovered.	Improved.	Removed Stationary.	Died.	Greatest num- ber on any day.	Least number on any day.	Remaining at end of year.	Daily average for the year.
1860-1	45	45	36	23	8	2	3	14	1	13	12
1861-2	258	271	223	159	27	14	23	85	14	57	27
1862-3	107	164	145	105	16	6	18	57	11	23	18
1863-4	157	180	132	93	8	7	24	45	21	31	27
1864-5	132	163	142	102	2	9	29	31	20	21	27
1865-6	196	217	172	133	5	8	26	49	21	45	35
1866-7	221	266	211	176	6	5	24	59	29	55	44
1867-8	251	306	250	183	16	15	36	63	38	56	50
1868-9	259	315	260	192	18	16	34	67	42	55	55
1869-70	284	339	298	220	21	20	37	62	36	41	50
1870-1	329	370	306	210	28	18	50	67	39	64	53
Totals,	2239		2175	1596	155	120	304				

*Monthly Admissions from March 1, 1870, to March 1, 1871.*

	Males.	Females.	Total.		Males.	Females.	Total.
March,	13	6	19	October,	23	11	34
April,	19	10	29	November,	17	6	23
May,	17	10	27	December,	13	5	18
June,	22	12	34	January,	23	8	31
July,	20	10	30	February,	18	8	26
August,	24	9	33				
September,	17	8	25	Totals,	226	103	329

*Occupation.*

MALES.				FEMALES.			
Laborers,	.	.	106	Housekeepers,	.	.	48
Mechanics,	.	.	71	Domestics,	.	.	46
Farmers,	.	.	18	Children,	.	.	9
Children,	.	.	13	Total Males,		226	
Seamen,	.	.	13	Total Females,		103	
Clerks,	.	.	4				
Physician,	.	.	1				329

*Nativity.*

Connecticut,	.	.	90	Ireland,	.	.	143
Massachusetts,	.	.	18	Germany,	.	.	15
New York,	.	.	12	Scotland,	.	.	5
Virginia,	.	.	5	England,	.	.	19
New Hampshire,	.	.	2	France,	.	.	1
Rhode Island,	.	.	3	Sweden,	.	.	2
Vermont,	.	.	3	Canada,	.	.	2
Maryland,	.	.	2	Nova Scotia,	.	.	1
Pennsylvania,	.	.	1	Island Malta,	.	.	1
Maine,	.	.	3	Americans,		140	
Missouri,	.	.	1	Foreigners,		189	

*Habits.*

Temperate,	.	.	272		Intemperate,	.	.	57
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*Disease or Cause of Death.*

Consumption, . . . . 15	Disease of Prostrate, . . . . 1
Typhoid Fever, . . . . 7	Dysentery, . . . . . 1
Accidents, . . . . . 4	Hepatitis, . . . . . 1
Pneumonia, . . . . . 4	Cancer of Uterus, . . . . 1
Bright's Disease, . . . . 3	Uraemie, . . . . . 1
Mania-a-Potu, . . . . . 3	Puerperal Fever, . . . . . 1
Spinal Disease, . . . . . 2	
Senile Debility, . . . . . 2	
Infants, . . . . . 2	
Disease of Heart, . . . . . 1	
Disease of Brain, . . . . . 1	
	50
	Males, . . . . . 35
	Females, . . . . . 15

*Births.*

Males, . . . . . 10	Females, . . . . . 7
	Total, . . . . . 17

Whole number of weeks, 2,581. Whole number of weeks without including soldiers, 2,172 5-7. Number of weeks occupied by soldiers, 408 2-7. Number of weeks occupied by soldiers belonging to other States, 35 5-7. Number of Connecticut soldiers admitted, 51. Number of seamen admitted, 7. Average duration of patients in the Hospital was 8 weeks. Average cost per week for the support of each patient, \$5.50. Average amount received per week from patients, without including soldiers or seamen, \$1.83. Average amount received from the State appropriation, without including soldiers, \$0.93. Average amount received per week from the State for soldiers, \$6.00.

Received from the town of Hartford, \$1,235.90 for the support of patients, at the rate of \$2.00 per week.

Received of A. Putnam, Esq., Collector of Customs for this district, \$191.18 for seamen, at the rate of \$5.00 per week.

## DONATIONS.

Hartford Daily Post, Times, and Courant. The Churchman; Mrs. C. J. Russ, Frank Leslie, Harper's Weekly; Rev. J. J. McCook, 2 Turkeys; Seyms & Co., 3 Turkeys; Mrs. Beckwith, 1-2 doz. Tumblers Jelly; James B. Hosmer, Esq., Furniture.

WM. P. CORRIN, *Steward.*

*Contributions for Additions and Improvements for  
1868-69 and '70.*

Chester Adams,	-	-	-	-	-	\$5,000
T. M. Allyn,	-	-	-	-	-	6,000
George M. Bartholomew,			-	-	-	1,000
George Beach,	-	-	-	-	-	1,000
John Beach,	-	-	-	-	-	500
James G. Bolles,	-	-	-	-	-	6,000
Bolles & Sexton,	-	-	-	-	-	250
Charles Boswell,	-	-	-	-	-	500
C. N. Beach,	-	-	-	-	-	500
Jonathan Brace,	-	-	-	-	-	200
Julius Catlin,	-	-	-	-	-	200
Cheney Brothers,	-	-	-	-	-	500
Leonard Church,	-	-	-	-	-	1,000
Joseph Church,	-	-	-	-	-	1,000
George H. Clark,	-	-	-	-	-	500
Samuel Coit,	-	-	-	-	-	1,000
Erastus Collins,	-	-	-	-	-	500
Samuel C. Colt,	-	-	-	-	-	1,000
Mrs. Samuel Colt,	-	-	-	-	-	6,000
Francis B. Cooley,	-	-	-	-	-	1,000
Leonard Daniels,	-	-	-	-	-	250
Calvin Day,	-	-	-	-	-	1,000
Thomas M. Day,	-	-	-	-	-	500
Foster & Co.,	-	-	-	-	-	500
James Goodwin,	-	-	-	-	-	6,000
John H. Goodwin,	-	-	-	-	-	1,500
George Hall,	-	-	-	-	-	1,000
Ellery Hills,	-	-	-	-	-	500
A. Holland,	-	-	-	-	-	50
James B. Hosmer,	-	-	-	-	-	1,000
E. G. Howe,	-	-	-	-	-	1,000
Hungerford & Cone,	-	-	-	-	-	250
Hunt, Holbrook & Barber,			-	-	-	1,000
R. W. H. Jarvis,	-	-	-	-	-	500
H. & W. Keney,	-	-	-	-	-	6,000

Joseph Langdon,	-	-	-	-	100
William T. Lee,	-	-	-	-	500
Horace Lord,	-	-	-	-	50
C. C. Lyman,	-	-	-	-	1,000
Stephen Marston,	-	-	-	-	100
Samuel Mather,	-	-	-	-	1,000
J. M. Niles,	-	-	-	-	1,000
J. S. Niles,	-	-	-	-	500
Charles H. Northam,	-	-	-	-	1,000
Nelson Palmer,	-	-	-	-	100
H. A. Perkins,	-	-	-	-	2,000
Daniel Phillips,	-	-	-	-	500
Charles M. Pond,	-	-	-	-	500
Joseph Pratt,	-	-	-	-	500
E. M. Reed,	-	-	-	-	200
John M. Riggs,	-	-	-	-	500
Mrs. Ann S. Robinson,	-	-	-	-	100
Henry C. Robinson,	-	-	-	-	400
D. A. Rood,	-	-	-	-	100
James Root,	-	-	-	-	6,000
Thomas Smith,	-	-	-	-	2,000
E. M. Taylor & Co.,	-	-	-	-	250
Samuel J. Tuttle,	-	-	-	-	1,000
William F. Tuttle,	-	-	-	-	1,000
Tertius Wadsworth,	-	-	-	-	5,000
Mrs. Mary A. Warburton,	-	-	-	-	1,000
Samuel S. Ward,	-	-	-	-	300
N. M. Waterman,	-	-	-	-	500
Miss E. M. Watkinson,	-	-	-	-	1,000
Mrs. Maria Watkinson,	-	-	-	-	1,000
Robert Watkinson,	-	-	-	-	1,000
Oswin Welles,	-	-	-	-	500
Woodruff & Beach,	-	-	-	-	1,000
Miss Mary W. Welles,	-	-	-	-	500
Total,					<hr/> \$86,900



## ORIGINAL SUBSCRIPTIONS FOR BUILDING PURPOSES.

*Adams, Chester	-	-	\$200	Buell, Robert	-	-	\$50
*Adams, F. D.	-	-	50	Barnard, John	-	-	50
*Allyn, T. M.	-	-	200	Brinley, Edward H.	-	-	50
Alden, H.	-	-	100	Brooks, David S. & Co.	-	-	25
Andrus & Son,	-	-	50	*Beach, George	-	-	10
Ashmead & Hurlburt,	-	-	60	Burkett, Ralph	-	-	10
Allen, Olcut	-	-	60	Bolles, Edward	-	-	10
*Allen, Joshua	-	-	50	Bolter, James	-	-	10
*Beckwith, A. S.	-	-	1,000	*Bull, John W.	-	-	10
Boswell, Charles	-	-	500	Belknap, Thomas	-	-	10
Brown, J. Seymour	-	-	500	Case, Tiffany & Co.,	-	-	310
Brainard, C. H.	-	-	310	Colt, Elisha	-	-	210
Benton, Charles	-	-	200	Carter, Newton	-	-	200
Bissell, Hiram	-	-	200	*Collins, William L.	-	-	210
Batterson, J. G.	-	-	200	*Colt, Samuel	-	-	1,000
Bulkeley, E. A.	-	-	210	Collins, Erastus	-	-	210
Brace, Thomas K.	-	-	210	Collins, Charles	-	-	210
Bartholomew, G. M.	-	-	260	*Crosby, Daniel X.	-	-	200
Barbour, Lucius	-	-	210	Cheney Brothers,	-	-	300
Beach, George, Jr.	-	-	210	Catlin, Julius	-	-	210
Birch & Bradley,	-	-	200	Carter, H. Kendall	-	-	200
Bartholomew, James	-	-	100	Church, Leonard	-	-	200
Butler, John A.	-	-	100	*Collins, A. M.	-	-	110
*Boum, S.	-	-	100	Coit, Samuel	-	-	100
Bernard, Henry 2d	-	-	100	Church, Joseph	-	-	100
*Buck, Dudley,	-	-	110	Cook, Moses	-	-	100
*Bolles, James G.	-	-	110	Crary, David	-	-	50
Blodgett, Roswell	-	-	100	Carrier, William B.	-	-	50
Bidwell, Pitkin & Co.,	-	-	100	Cellar, Mark	-	-	50
Brainard, Hannah	-	-	100	Corning, George W.	-	-	60
Blanchard, Homer	-	-	100	Corning, John B.	-	-	50
Brinley, Misses	-	-	100	Crosby, James B.	-	-	50
*Birge, A. W.	-	-	60	Cook, Aaron	-	-	50
*Burnham, George	-	-	60	Chamberlin, W. P.	-	-	50
Brown, H. L.	-	-	50	*Chapin, M. W.	-	-	60
Benson, Joseph	-	-	50	Cohen, B. M.	-	-	50
Ballou, L.	-	-	50	Clark, George 3d	-	-	50
*Brace, Thomas K., Jr.	-	-	50	Callender, W. H. D.	-	-	50
Burr, A. E.	-	-	60	*Chauncy, Michael	-	-	50
Brainard, L.	-	-	50	Crittenden, L. S.	-	-	25
Brabson & MacGower,	-	-	50	*Clark, Ezra	-	-	10
Ballerstein, Moses	-	-	50	Clark, Ezra, Jr.	-	-	10
Bamberger, Leopold	-	-	50	Dunham, Austin	-	-	210
Boum, Jacob	-	-	50	Daniels, Leonard	-	-	250
Barrows, A. W.	-	-	50	Day, Griswold & Co.,	-	-	210
Beresford, Samuel B.	-	-	50	Dixon, James	-	-	210
Beach, C. M.	-	-	60	Dillibar, Miss Hannah	-	-	100
Beach, J. W.	-	-	60	Deming, Henry C.	-	-	100
Basset, E. J.	-	-	50	Day, Calvin	-	-	210
Beach, John	-	-	60	Davis, G. F.	-	-	110
Brown, Roswell	-	-	50	Danforth, J. W.	-	-	50
Brown, F. A.	-	-	60	Day, Horatio E.	-	-	60
Buck, George	-	-	50	Dyer, George B.	-	-	25

Day, Thomas M.	-	-	\$10	Hamersley, William James	-	\$35
Dimock, Joseph W.	-	-	10	*Hills, Isaac and Son	-	25
Ely, William D.	-	-	100	*Ives, Lawson C.	-	110
Eldredge, John B.	-	-	50	Jewell, P. & Son	-	100
Enson, A. D.	-	-	50	Judd, J. F.	-	100
Ely & Co.,	-	-	25	Jackson, J. C.	-	50
Eaton, William K.	-	-	10	Johnson, Horace	-	50
Fessenden, Edson	-	-	300	*Joslyn, M.	-	50
*Flower, Ebenezer	-	-	210	*Judd, W. M.	-	10
*Freeman, Horace	-	-	110	Kellogg, E. N.	-	210
French, Henry	-	-	110	Keeney, H. & W.	-	400
Foster & Co.,	-	-	100	Kingsbury, N.	-	100
Fenn, Edward H.	-	-	50	Kohn, Tobias,	-	50
Francis & Gridley,	-	-	50	Katzenburg & Wallach,	-	50
Fitch, Patten	-	-	50	Kellogg, Joseph	-	25
Fox, Gerson	-	-	50	Kenyon, Robert	-	25
*Farwell, John I.	-	-	50	Katzenberg, Mayer	-	20
*Farwell, T. B.	-	-	50	*Lee & Butler,	-	520
Fox, Charles E.	-	-	10	Lincoln, George S. & Co.	-	260
*Goodridge, S. W.	-	-	200	Lyman, C. C.	-	200
Goodwin, James	-	-	210	*Loomis, Simeon L.	-	200
Gillett, Ralph	-	-	100	*Lobdell, E. Thomas	-	50
Goodwin & Co.,	-	-	100	Langdon, Joseph	-	60
Gleason & Willard,	-	-	100	Lee & Dean,	-	50
Glazier, Carlos	-	-	50	*Lincoln, Theo. M.	-	50
Goldsmith, Herman	-	-	50	Lord, Horace	-	50
Goodwin, Kennéy & Co.,	-	-	50	Loth, Joseph	-	50
Green, William H.	-	-	50	Litchfield, N.	-	20
Geer & Pond,	-	-	50	Mather, Roland	-	210
Green, B. W.	-	-	60	*Mather, William	-	200
Goodwin, John H.	-	-	250	Morgan, Mrs. Joseph	-	200
Goodwin, Daniel	-	-	60	Merriman, J. & M.	-	200
Goodwin, Jonathan	-	-	35	Most, John H.	-	100
Goodman, C. H.	-	-	10	Mather, Elijah	-	100
Gill, Alfred	-	-	10	Marsh, S. E.	-	50
Geer, Elihu	-	-	10	Morgan, Henry K.	-	50
Hosmer, James B.	-	-	560	*McNamara, Hugh	-	60
Howe, Edward G.	-	-	200	Marston, Stephen	-	50
Hills, Isaac	-	-	210	Mather, Charles	-	50
Huntington, Hezekiah	-	-	210	Mandlebaum, Jacob	-	50
Hungerford & Cone,	-	-	200	Mather, Samuel	-	250
Hollister, Nelson	-	-	200	Morris, J. F.	-	50
Hughes, Rev. James	-	-	200	Mayer, David	-	50
*Hudson, B. & W.	-	-	100	Mowry, N.	-	50
Hills, J. & O.	-	-	160	McNary, J. M. B.	-	50
Hunt, Dr. E. K.	-	-	50	Moore, George W.	-	50
Hawley, Dr. G. B.	-	-	250	Matson, William N.	-	25
*Holmes, Henry	-	-	50	*Morgan, Denison	-	10
Hardenburg, C. M.	-	-	50	Morgan, N. H.	-	10
Hosmer, Charles	-	-	60	McManus, J. T.	-	10
Hart, S. N.	-	-	50	*Niles, John M.	-	210
Hunn, George A.	-	-	50	Northam, C. H.	-	50
Hooker, B. E.	-	-	50	Nott, Samuel	-	10
Humphrey, Lemuel	-	-	50	Owen, E. H.	-	60
Hubbard, Richard D.	-	-	50	Olmsted, John	-	10
Hillyer, C. T.	-	-	60	*Pond, Charles F.	-	300
Hopkins, William R.	-	-	50	Pond, Charles M.	-	200
Howard, Chauncey	-	-	50	Perkins, Henry A.	-	210
Hollander, A.	-	-	50	*Parsons, Francis	-	310
Hammond, A. G.	-	-	50	*Peck, Ira	-	400
Hubbard, Samuel	-	-	50	Phillips, Daniel	-	310
Harbison, Hugh	-	-	50	*Phelps, Guy R.	-	200

Pratt, Miss Esther	-	-	\$200	Sexton, Lorin	-	-	\$50
Powell, J. B.	-	-	100	*Spencer, Stephen	-	-	25
Palmer, J. C.	-	-	100	*Sheldon, H. & Co.	-	-	25
Pratt, Joseph	-	-	150	Smith, Joseph	-	-	25
Pratt, H. Z.	-	-	100	Seymour, Jeremiah	-	-	25
Parker, E. A.	-	-	50	Steele, Thomas	-	-	10
Pierson, A.	-	-	60	Sigourney, C. H.	-	-	10
Porter, H. L.	-	-	60	Smith, Alfred	-	-	10
*Perkins, Henry	-	-	50	Sill, George G.	-	-	10
Phelps, D. B.	-	-	50	*Sigourney, Mrs. L. H.	-	-	10
Pierson, L. T.	-	-	25	*Trumbull, Joseph	-	-	660
Pease, E. T.	-	-	10	*Tuttle, Miles A.	-	-	210
Roberts, E. C.	-	-	200	Turner, William W.	-	-	200
Rogers Brothers,	-	-	320	*Toucey, Isaac	-	-	200
\$Root, Elisha K.	-	-	200	Terry, O. G.	-	-	200
*Ripley, E. G.	-	-	210	Taylor, Edwin	-	-	135
Ripley, Philip	-	-	100	*Talcott, Russell G.	-	-	110
Robbins, P. F.	-	-	110	*Terry, Seth	-	-	100
*Robinson, L. F.	-	-	100	Thatcher, S. P. & Goodrich	-	-	120
Russell, Dr. G. W.	-	-	50	Tyler, Frederick	-	-	100
*Rogers, Dr. Benjamin	-	-	50	Thompson, Hussey & Slater,	-	-	50
Root, Thomas S.	-	-	50	Thayer, E. A.	-	-	50
Reed, E. M.	-	-	50	Taylor, Samuel	-	-	50
Roberts, Ebenezer	-	-	50	*Tucker, Erastus	-	-	50
Rothenburg, L.	-	-	50	Taylor, Henry	-	-	50
Reed, Rawson	-	-	50	Talcott, C. M.	-	-	60
Smith, Thomas	-	-	750	Terry, Roderick	-	-	10
Seymour, John W.	-	-	210	Vallant, Richard	-	-	50
Seymour, Charles	-	-	210	Woodruff & Beach,	-	-	500
*Storrs, William L.	-	-	275	Ward, Samuel S.	-	-	310
*Shepard, Mrs. Eliza K.	-	-	200	Welch, George M.	-	-	210
*Sweet, Truman	-	-	100	*Wells, James H.	-	-	210
Sisson, A. L.	-	-	150	Waterman, N. M.	-	-	200
Seymour, O. D.	-	-	100	Wilcox, Loyal	-	-	100
Smith, Elisha T.	-	-	160	White, Sidney A.	-	-	110
Smith, Erastus	-	-	110	Wadsworth, Tertius	-	-	100
Smythe, Isaac F.	-	-	100	West, A. G.	-	-	100
Sperry, Stiles D.	-	-	100	White, Moses	-	-	50
*Sargent, L. N.	-	-	100	White, William S.	-	-	50
*Starr, B. P.	-	-	100	Wallach, H. & Co.	-	-	50
Seymour, D. M.	-	-	50	Wallach, Ph. & Co.	-	-	50
Smith, Chauncey G.	-	-	50	*Ward, James	-	-	50
Squires, William H.	-	-	50	Wright, William L.	-	-	50
Sears, H. K.	-	-	50	Wells, Charles P.	-	-	50
Skinner, Thomas	-	-	50	Walkeley, James C.	-	-	60
Sisson, Thomas	-	-	50	Wesson, David	-	-	50
*Spencer, Calvin	-	-	60	Wells, James G.	-	-	50
Savage, Samuel G.	-	-	50	Williams, Henry P.	-	-	90
Stillman, P. D.	-	-	60	Wells & Burnham,	-	-	50
Shultas, James B.	-	-	50	Weatherby, C. S.	-	-	50
*Seyms, George	-	-	50	Williams & Hall,	-	-	50
Seyms, R. S.	-	-	60	Westland, William D.	-	-	50
Stebbins, Lucius	-	-	50	White, J. W.	-	-	50
Seymour, Harvey	-	-	60	Wood, William A.	-	-	50
Stern, Meyer	-	-	50	Woolley, G. W. & W. P.	-	-	50
Selling, Henry	-	-	50	*Waburton, John	-	-	1,000
Selling, David	-	-	50	Wells, Gideon	-	-	10
Simons, H.	-	-	50	Wells, H. D.	-	-	10
Stern, Abraham	-	-	50	*Watkinson, David	-	-	1,000
Sanford, Charles W.	-	-	50	Williams, Thomas S.	-	-	1,010
Spencer, William	-	-	50				
Sugden, William E.	-	-	50	Total,	-	-	\$41,325



## Admission of Patients to the Hartford Hospital.

ALL patients are admitted by a permit from one of the Executive Committee, who arrange the price per week according to the circumstances of the case, and accommodations required.

Those who are able to contribute toward their support, are received at an agreed rate.

The ordinary charge per week is \$5.00, which includes medical and surgical care, together with medicine and nursing.

Persons who are desirous of extra accommodations, are charged according to circumstances.

Persons who are destitute of friends and means, are provided for in various ways.

Those persons only who are carried directly from the place of accident, are admitted without a certificate from the Executive Committee.

No patients having syphilitic or contagious disease are admitted into this Institution.

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## HOSPITAL REGULATIONS.

PATIENTS shall not leave the Hospital grounds without permission.

No ardent spirits or other stimulating drinks shall be brought into the Hospital by the patients or their friends, nor shall patients be furnished with fruits, or any articles of food, without the knowledge and permission of the steward or medical attendant.

No patient shall enter the kitchen, cellar, or any of the



domestics' apartments, under any pretence whatever, except by permission of the steward or matron.

No patient shall smoke tobacco in the house.

No male patient shall go into the women's apartments, or wards, nor any female into those of the men.

There shall be no loud talking, nor any profane or vulgar language, nor any unnecessary noise or disturbance in the building, or on the grounds of the Hospital, nor shall any insulting or abusive language or conduct be allowed, either toward other patients or the attendants.

Spitting on the floor or other practices inconsistent with neatness of the building and furniture, must be avoided, and a proper regard must be observed for cleanliness in and around the Hospital.

Before laying down on their beds, patients must take off their boots and shoes, turn down the outer spread, and each patient must be responsible for the neatness of his bed when not occupied during the day.

All convalescents who are able, and who do not pay the regular charge of the Institution, shall assist generally in the police of their respective wards.

Patients will retire to their beds at or before nine o'clock, P. M., when the lights in the wards will be extinguished, except such as are absolutely necessary.

Visitors shall not be allowed within the wards except by permission from the steward, matron, or medical attendant.

Visitors are not admitted on the Sabbath.

It shall be the duty of the steward to enjoin a strict observance of the above regulations, and he shall report to the Executive Committee any patient who shall continue to violate the above rules, and if occasion requires, may immediately discharge such patient from the Institution.

No officer or employee of this Institution shall accept any gift or bequest from any patient, except with the approbation of the Executive Committee.

Per order Executive Committee,

HARTFORD HOSPITAL.

## ACT INCORPORATING THE HARTFORD HOSPITAL.

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*Resolved, by the Senate and House of Representatives, in General Assembly convened.* SEC. 1. That David Watkinson, Ebenezer Flower, A. S. Beckwith, S. S. Ward, A. W. Butler, A. M. Collins, Wm. T. Lee, Job Allyn, Samuel Colt, James B. Crosby, Albert Day, Chester Adams, James G. Bolles, George Beach, Thomas Smith, Jonathan Goodwin, A. W. Birge, Lucius Barbour, and Charles T. Hillyer, and all such persons as [are] from time to time associated with them, for the purpose of establishing and maintaining a hospital in the city of Hartford, and their successors, be, and they hereby are, incorporated for said purpose. and made a body corporate and politic, by the name of the Hartford Hospital, and by that name shall be capable of suing and being sued, pleading and being impleaded, and may purchase, take, receive, hold, sell and convey estate, real and personal, to such an amount as may be necessary for the purposes of said corporation; may have a common seal, and the same may alter and change at pleasure, and may make and execute such by-laws and regulations, not contrary to the laws of this State or of the United States, as shall be deemed necessary for the well ordering and conducting the concerns of said corporation.

SEC. 2. That said corporation shall be governed by the following articles :

ART. 1. This corporation shall be called the Hartford Hospital. Persons contributing for the use of the corporation at any one time the sum of fifty dollars, shall be members for life. Persons contributing the sum of five hund-

red dollars shall be vice-presidents for life, and also directors for life ; those contributing two hundred dollars shall be directors for life ; those twenty-five dollars shall be members for five years, and those ten dollars shall be members for one year.

ART. 2. In order the better to carry into effect the object of the said corporation, the members thereof shall, at an annual meeting, to be held at such time and place as the by-laws of the said corporation shall direct and appoint, elect from their own number, by ballot, and by a majority of the votes given at such election, twelve persons as directors of the said corporation ; and the persons so elected, together with the mayor of the city of Hartford for the time being, shall constitute a board of directors. The directors so elected shall hold their offices for one year, and until others are elected in their places. In case of any vacancy in the board, the remainder of the directors shall have power to fill such vacancy until the next election.

ART. 3. The board of directors shall, annually, as soon as may be convenient after the said annual election, elect by ballot, from among their own numbers, a president, a vice-president, and shall also elect a secretary and a treasurer, who shall hold their offices for one year, and until others are elected in their stead. But as many directors may be chosen as there may be directors by subscription.

ART. 4. The said board of directors shall have power to manage and conduct all the business and concerns of the corporation, and to make such laws as may be necessary for the management and disposition of the estate and concerns of the corporation, and to appoint such officers and servants as they may deem necessary. The medical officers, including all attending and consulting physicians and surgeons, shall be appointed annually. Vacancies occurring before the expiration of a year from the time of any appointment, shall be filled by the directors, as soon as the same can conveniently be done.

ART. 5. A majority of the corporators shall call the first meeting for the election of officers, at such time and place in



the city of Hartford as they shall appoint, giving three days' notice thereof, by publishing the same in the daily papers of the city; and the annual meeting of said corporation shall be held at such time and place, and on such notice, as shall be fixed by the by-laws of said corporation.

SEC. 3. This act may be altered, amended, or repealed by the General Assembly.

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*Be it enacted by the Senate and House of Representatives, in General Assembly convened:*

That all property, real or personal, which has been, or may be, granted or given to "The Hartford Hospital," and by them invested and held, for the use of said Institution, shall, with the income thereof, remain exempt from taxation.

*Provided*, that the property of the Directors of said institution shall not be exempt from taxation.

Approved, June 25th, 1856.



### FORM OF BEQUEST.

ITEM. I give and bequeath to the HARTFORD HOSPITAL, in the city of Hartford, the sum of ——— dollars, to be paid by my executors out of my real or personal estate, as soon as the settlement of my affairs will permit, to the Treasurer of the said Institution for the time being, in trust, to be applied by the Directors thereof to the humane purposes of said Institution.

# ANNUAL REPORT

OF THE

## Trustees of Fitch's Home,

DARIEN, CONN.,

FOR THE YEAR 1870-71.

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### TRUSTEES.

JOSEPH B. HOYT,.....	STAMFORD
C. J. STARR,.....	"
EDWARD SLOSSON,.....	GREENWICH.
MOSES CRISTY,.....	"
CHARLES BROWN,.....	DARIEN.
BENJ. WEED,.....	"
M. B. PARDEE,.....	SOUTH NORWALK.
<i>Ex-Officio</i> —HON. ASA B. WOODWARD,.....	NORWALK.
A. HILL, .....	"
STEPHEN HOYT,.....	NEW CANAAN.
JOS. E. TURNER,.....	WILTON.

### Executive Committee.

J. B. HOYT,                      BENJ. WEED,                      CHAS. BROWN.

**Treasurer**—J. B. HOYT.    **Secretary**—A. HILL.

*To the General Assembly of the State of Connecticut, May Session, A. D., 1871.*

#### FITCH'S HOME FOR DISABLED SOLDIERS

was founded by BENJAMIN FITCH, Esq., a retired merchant, living in Darien.

It was incorporated by the General Assembly of this State, May Session, A. D. 1864.

#### ORIGINAL DESIGN.

It was originally designed as a Home for disabled soldiers only, but by mutual consent it was subsequently changed to a Home for the orphan children of such as had died in the army or subsequent to the close of the war.

#### PERSONS IN CHARGE.

It is under the care and direction of eleven Trustees, three of which constitute an Executive Committee.

Persons immediately in charge are : 1st, a Matron ; 2d, one man, and three females as assistants. The older children assist in the various departments, according to their age and ability.

#### NUMBER OF CHILDREN.

The whole number of children who have here found a home since the opening of the institution, is 83.

Number of children now in the Home, 42. During the past year we have had 54. Nine have gone to places either as self-reliant or by adoption. With but one exception all are giving good satisfaction.

A few orphans are now boarding at the home, and sharing its benefits, at an expense of \$10 per month, and clothed.

#### SCHOOL.

A very excellent school has constantly been maintained in the institution, under the superintendence of the Matron, Miss M. J. Davis, who has proved herself most efficient in this department, and has been singularly successful in its management.

It is now regularly organized into a school district, under the statute, and shares the benefits of such organization. The

children are in school forty-six weeks per year, and are taught all the branches that are usually taught in our higher district school's.

The school is conducted by the matron, and an assistant, who has herself sought the advantages of the school.

#### HEALTH.

But little sickness has been experienced since the institution has been in operation, and but one death has occurred. These facts speak volumes as to the salubrity of the place, and the sanitary care of the children. And this *one* death occurred more than five years ago.

The average age of the children is eleven and a half years.

#### LIBRARY.

A very fine library, collected by Mr. Fitch, consisting of several thousand volumes, was presented to the Home by him, and is now enjoyed by the inmates of the Home.

#### PICTURE GALLERY.

In addition to the Library, a magnificent Picture Gallery has been fitted up and filled with an extensive collection of Paintings in oil, gathered by Mr. Fitch, while in Europe, and constitute one of the finest collections in the State.

These are accessible to the public, at any time, for the small sum of Twenty-five Cents. The revenue thus derived, contributes to the support of the institution.

#### STATUARY.

A massive group in marble graces the main hall. It was designed for the Home and executed by our distinguished fellow countryman—a transcendant artist—Larkin G. Mead, Esq., of Florence, Italy. This is well worth a journey of miles to see.

#### WANTS OF THE INSTITUTION.

Beautiful, rare, and costly as the Pictures and Statuary may be, they will buy but little food and clothing for the children. There is ample room, and verge enough for from one to two hundred children, and applications for the admission of Or-



phan Children are numerous. But a limited number only, much less than the capacity of the buildings would accommodate, can be received, for the reason that the resources of the institution can only supply food and clothing for about 50. By the Treasurer's Report it will be seen that the revenue from invested funds is but a trifle over \$1,000, and that without the aid received from the State, and the several towns of this Senatorial District, we could not have maintained the number of children under our care during the past year. For while the current expenses of the past year were \$5,543 65, the invested funds, donations, Sundry collections, and Public School Money received, only amounts to \$1,881 31 in money, Donations of clothing, hats, shoes, &c., from private individuals, with the most rigid economy, have enabled us to go through the year.

The Orphan Children of *Soldiers* must soon diminish from the Home, as the period of their tutilage expires, and consequently the revenue from the towns. But if sufficient means can be found, the Home may be filled with Orphan Children not of Soldiers, and thus the institution be made a permanent benefit to a large number of the wards of the State who are in most desperate need of its advantages.

While we have a magnificent site, over looking the waters of Long Island Sound, spacious grounds, commodious buildings, &c., we need funds for current expenses.

#### TREASURER'S REPORT.

The report of the Treasurer is herewith submitted :

*Fitch's Home in account with J. B. Hoyt, Treasurer, from May 1st, 1870, to May 1st, 1871.*

Dr.		Cr.	
To cash due Treas. on old acct.	\$64 00	By cash from invest'd funds,	\$1,076 45
“ salary of Matron,	600 00	“ “ State aid,	1,872 84
“ domestic help,	753 50	“ “ Town of Norwalk,	615 50
“ insurance,	71 25	“ “ “ Stamford,	804 00
“ supplies and clothing,	3,894 65	“ “ “ Greenwich,	156 00
Balance in cash,	160 25	“ “ “ Darien,	204 00
		“ “ individual donations,	435 20
		“ “ sundry collections,	334 56
		“ “ from school fund,	45 00
	<u>\$5,543 65</u>		<u>\$5,543 65</u>















